



INSTITUTE FOR DEFENSE ANALYSES

**Learning from the First Victories of the  
21st Century: Mazar-e Sharif —  
A Preview**

William M. Knarr, Jr.  
Robert F. Richbourg  
John Frost

August 2004

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## **PREFACE**

This publication was prepared as a preview to the Enduring Freedom Reconstruction products and capabilities.

The objective of the Enduring Freedom Reconstruction task, in support of the Defense Advanced Research Project Agency at the request of General Tommy Franks, CENTCOM Commander, was to “reconstruct salient aspects of a major Afghanistan Campaign (e.g., Mazar-e Sharif) in virtual simulations to support historical analysis as well as further research and development.”

The purpose of the publication and associated media is to (1) contrast state-of-the-art simulation 10 years ago with today’s capabilities, (2) provide an overview of the campaign for Mazar-e Sharif and focus on the battle at Tiangi (pass), and (3) demonstrate the use of the “Tiangi” re-creation as basis for comparing the contributions of various future systems.



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**I. INTRODUCTION: LEARNING FROM THE FIRST VICTORIES OF THE 21ST CENTURY:  
MAZAR-E SHARIF—A PREVIEW**

*Learning from the First Victories of the  
21st Century: Mazar-e Sharif  
—A Preview—*





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## **INTRODUCTION: LEARNING FROM THE FIRST VICTORIES OF THE 21ST CENTURY: MAZAR-E SHARIF— A PREVIEW**

At the request of General Tommy Franks, Combatant Commander, U.S. Central Command (CENTCOM), a Defense Advanced Research Projects Agency/Institute for Defense Analyses (DARPA/IDA) team reconstructed “salient aspects of a major Afghanistan Campaign (e.g., Mazar-e Sharif) in virtual simulation to support historical analysis as well as further research and development.”<sup>1</sup> This presentation, “Learning Lessons from the First Victories of the 21st Century: Mazar-e Sharif—A Preview,” provides a glimpse of that work. Specifically, it:

- Contrasts state-of-the-art simulation 10 years ago (e.g., '73 Easting) with today's simulation capabilities—Operation Enduring Freedom Battle Reconstruction;
- Provides an overview of the Campaign for Mazar-e Sharif and focuses on the battle at the Tiangi<sup>2</sup> as an exemplar of one of the many significant engagements; and
- Uses the “Tiangi” re-creation as basis for comparing the contributions of various capabilities. The purpose is to demonstrate a method by which capabilities, that is, systems or procedures, can be measured against a base case.<sup>3</sup>

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<sup>1</sup> Project Assignment Number DA-3-2150, “Enduring Freedom Reconstruction.”

<sup>2</sup> Tiangi means “pass.”

<sup>3</sup> In this case we selected only three DARPA technologies and in a quick, back-of-the-envelope review, looked at their potential contributions to a future “Tiangi” battlefield. In this scenario the technologies could be different. The point is, we are offering a methodology.



## **II. THE EVOLUTION OF SIMULATION CAPABILITIES**



# '73 Easting





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CPT HR McMasters: “During the battle, there was no time to feel any emotion; there was no time to feel any fear. I found myself as I watched this battle...I could feel the adrenaline flowing, [laugh] I could feel my palms start to sweat.”<sup>4</sup>

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<sup>4</sup> CPT H.R. McMasters, USA, “The Reconstruction of the Battle of ’73 Easting—A DARPA Project Report,” 25 February 1992.



# 11 September 2001





Our world suddenly changed on 11 September 2001 with terrorist attacks on the World Trade Center and Pentagon. We took the fight to Afghanistan.



# A Decade After the '73 Easting Simulation



As in '73 Easting for the Gulf War, simulation was applied to one of the first victories of the 21st century, Mazar-e Sharif.



## The Evolution of Simulation from '73 Easting to Afghanistan



'73 Easting



Afghanistan



What you just saw represents some of the many advances in simulation that have occurred in the last decade. The '73 Easting reconstruction required a van full of large computer systems that worked primarily at the platform level, such as tanks and Bradleys, and were not able to represent humans as articulated models. The Mazar reconstruction was completed by a federation of systems, all running on PCs, to portray weather; highly articulated animate figures; dynamic, high-resolution terrain; and novel systems. These federated systems worked together to create an immersive environment that clearly represents conditions and actions as they occurred throughout the battle space.



### **III. THE BATTLE FOR MAZAR-E SHARIF—A PREVIEW**

## *The Battle for Mazar-e Sharif—A Preview*





What you are about to see is an application of simulation technologies to provide a faithful reconstruction of the first battle in the Afghanistan war—it was a joint battle fought at the tactical level. At the end you will see a method for assessing the contributions of various technologies by using simulation.



## Mazar-e Sharif...a story of initiative, adaptability, and transformation





After 9/11 the United States and coalition forces pursued an enemy that found sanctuary in Afghanistan, a landlocked country that was thousands of miles from U.S. basing. The story of Mazar-e Sharif, the gateway to Afghanistan, is about the heroics of U.S. forces on the ground and in the air, precision munitions, and a courageous 19th-century indigenous coalition partner who defeated a seemingly undefeatable foe. It's a story of initiative, adaptability, and transformation.



# USCENTCOM Commander



“Almost ten years ago, . . . DARPA and IDA reconstructed the Battle of 73 Easting from the Gulf War. Much was gained from that effort to capture and recreate our actions in a virtual simulation effort. Today we are engaged in a new network-centric war. It needs to be recorded and broken down for further research, development, and historical analysis.”

—Letter from GEN Tommy R. Franks, Commander, USCENTCOM, to Dr. Tony Tether, Director, DARPA



“Mazar-e Sharif was...important... because it opened the land bridge to Central Asia...and it provided the first glimmer of hope...to a great many people in Afghanistan.”





General Franks, CENTCOM commander, a student of simulations and director of the Louisiana Maneuvers, didn't want lose the opportunity to capture this rare confluence of strategies, human adaptability, and application of technologies, both old and new, as he requested and later approved Mazar-e Sharif as the "right scenario" for DARPA's battlefield reconstruction: "Mazar-e Sharif was an important fight for us because it was the fight that opened the land bridge to Central Asia to the north and provided the first glimmer of hope—not only to the Northern Alliance, but to a great many people in Afghanistan."<sup>5</sup>

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<sup>5</sup> General Tommy Franks, USA, Interview by Bill Knarr, IDA, 3 February 2003, at CENTCOM, MacDill Air Force Base, Florida.



# Extended Area of Operations





But the challenges were immense. First, let's look at the air operations. Logistics and humanitarian assistance arrived from Germany, bombers from the States and Diego Garcia, fighters from Southwest Asia and the Arabian Gulf, and tankers prepositioned en route to support those operations.



# Area of Operations

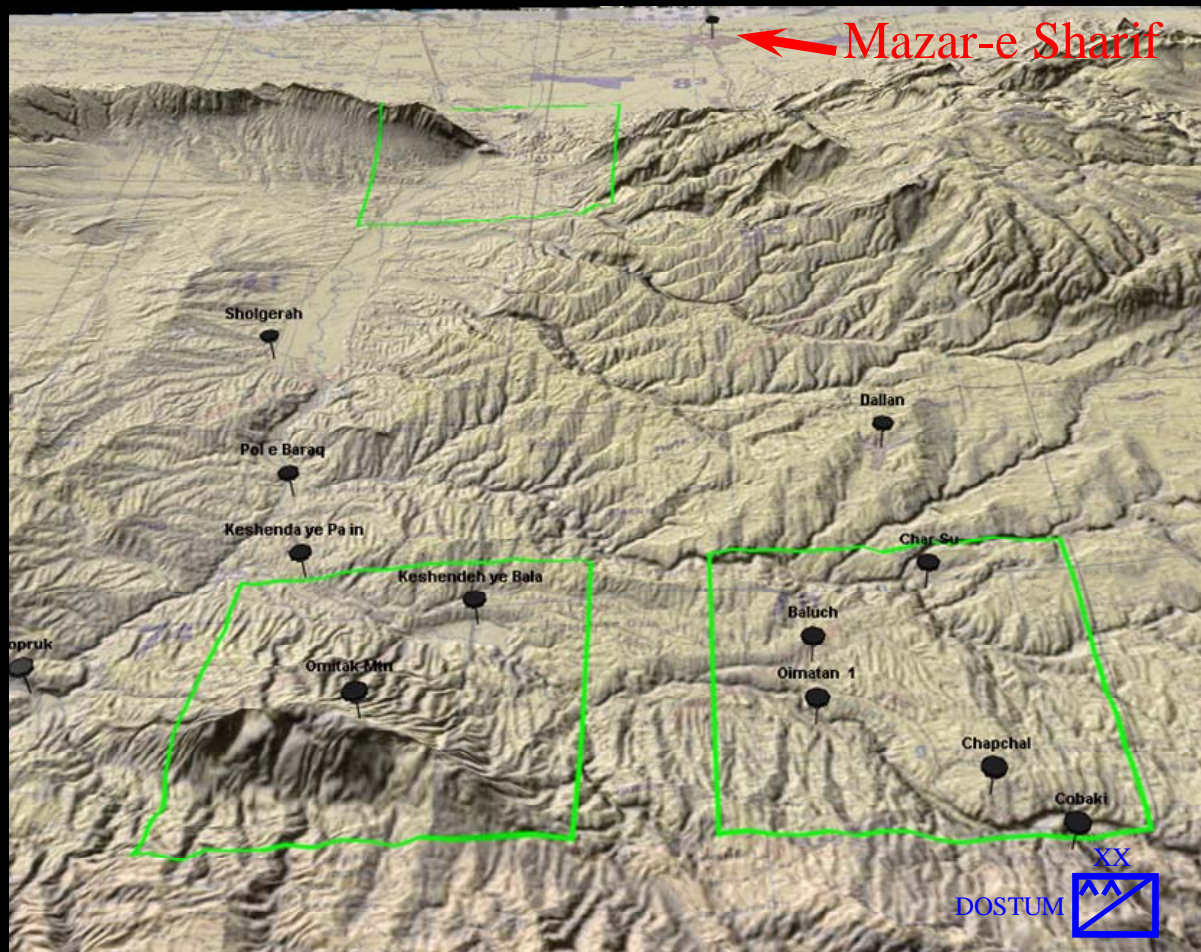




Let's look at the ground force area of operations.



## Tiger 02—Operational Area

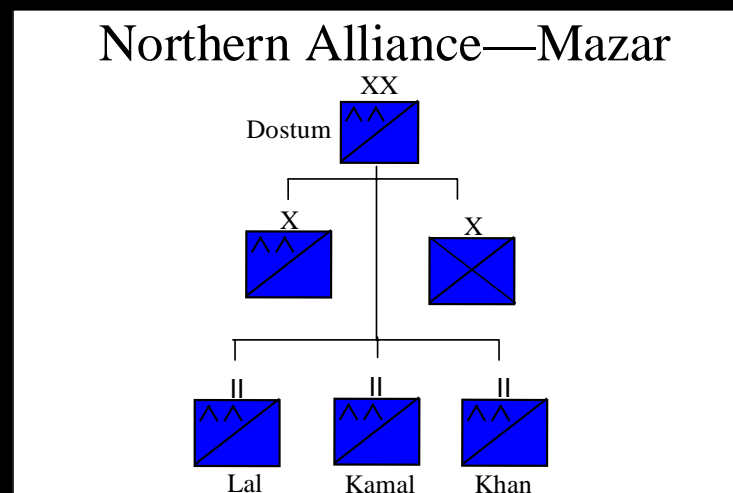
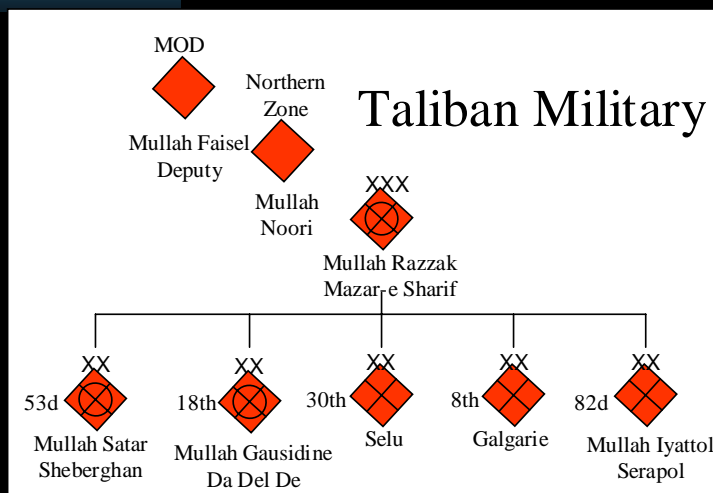




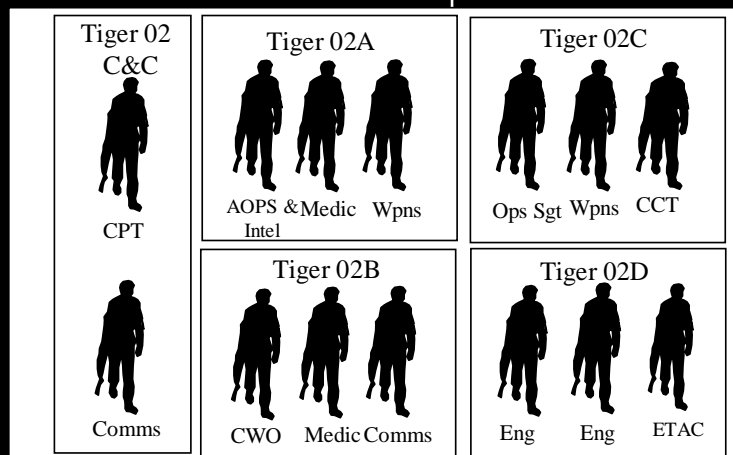
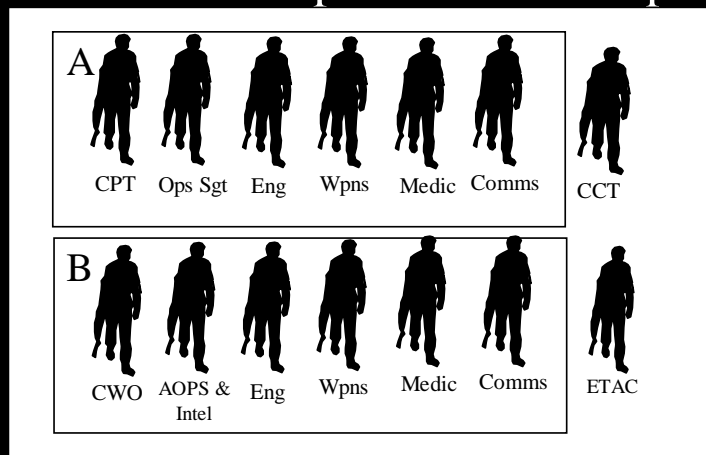
Although General Dostum was influential in several of the Northern provinces, his fight primarily took place in a 25 by 50 mile area, with Mazar-e Sharif to the north and his initial major engagements to the southeast in an area called the Darya Suf, or the Valley of the Caves.



# Who's Who



## Special Forces Operational Detachment A+





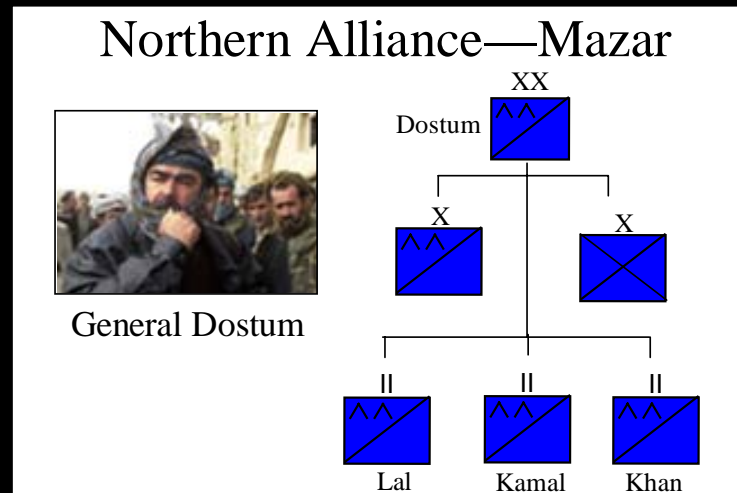
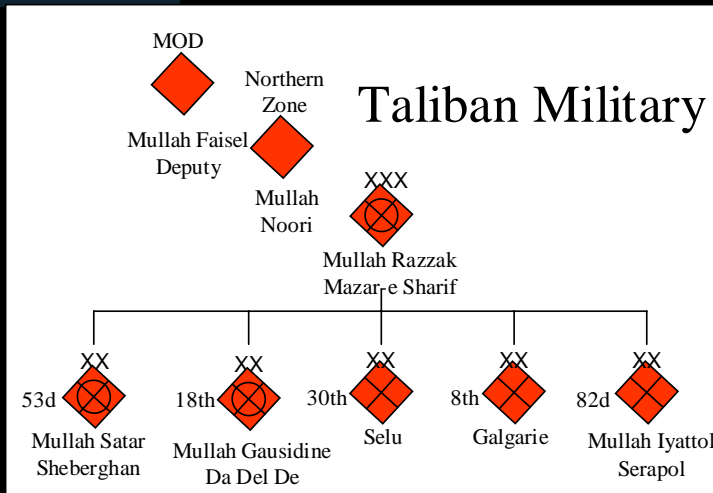
Let's take a look at the ground forces. The Taliban, configured with a corps in Mazar commanded by Mullah Razzak, consisted of approximately 10,000 soldiers, much smaller than a U.S. corps.<sup>6</sup> Northern Alliance forces in the Mazar area were commanded by General Dostum. He had approximately 2,500 to 3,000 horsemen and foot soldiers. ODA 595 consisted of 12 special forces soldiers. They included two weapons, engineers, medics, and communication experts. Doctrinally, this provided the commander the resources to break the detachment into an A and B Team. Upon receipt of a combat controller and enlisted terminal attack controller from the Air Force, ODA 595 Commander had the resources to further break his detachment into a command-and-control element and four cells. He dispersed these cells throughout the battlefield to support Northern Alliance subcommanders and General Dostum's strategy.

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<sup>6</sup> General Habib Bullah, interviewed at Tiangi and Mazar-e Sharif, 10 December 2002. General Bullah, former Taliban, provided the Taliban Order of Battle for this presentation. All interviews cited in this publication were conducted as part of the Operation Enduring Freedom Reconstruction Project.



# Who's Who



## Special Forces Operational Detachment A



ODA 595 Commander  
and Callsign Tiger 02



ODA 595 Ops Sgt and Cell  
Leader Tiger 02C



Weapons Sergeant  
Tiger 02C



Eyewitness accounts of the battle will be provided by GEN Dostum; the ODA 595 Commander, or call sign Tiger 02; the ODA 595 Operations Sergeant, and in this case Cell Leader for Tiger 02C; and the Weapons Sergeant for Tiger 02C.

Before we recount the battle, the ODA commander discusses his unit, mission, intent, and desired end state.



# ODA 595 (+)



## Composition

- **12 x SF + 2 x USAF** (1xCCT and 1xETAC)
- **Highly trained**—unconventional warfare
- **Regionally Oriented**—in Arab/Uzbek cultures
- **Language Capable**—basic Arabic, Russian, and Uzbek
- **Cross-trained**—tactics, shoot, move, communicate, and survive
  - 9 / 12 qualified SOF snipers, rocket and mortar employment / use, employ CAS
  - medical (1st responder),
- **Extremely Versatile / Flexible / Adaptable**—cellular training focus
  - empowered and trusted
- **Experienced Unit / Mature Soldiers**
  - cohesive team / unit for 24 months
  - 5 veterans from Gulf War, Somalia, and Haiti
  - AVG age 32, AVG 8 years of active service
  - 11 / 12 married, 9 / 11 with 2+ children

## Mission

ODA-595 conducts unconventional warfare (UW) in support of General Abdul Rashid Dostum in order to render UW operational area unsafe for Taliban and Terrorist organizations.

## Intent

- Conduct Unconventional Warfare (UW)
- Provide Close Air Support (CAS)
- Provide Humanitarian Assistance (HA)

## Endstate

- Render area unsafe for Taliban and Terrorist organizations (AQ and IMU)
- Capture an airfield vicinity Mazar-e Sharif
- Secure the land lines of communication to Heyraton, Afghanistan and the Freedom Bridge to Uzbekistan
- All Americans and ODA members come home





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“I had the privilege of serving as the Commander of Operational Detachment Alpha-595 based at Ft. Campbell as part of the 5th Special Forces Group. This detachment was chosen to be one of the first two Special Forces teams to be deployed into Afghanistan. My detachment would have the honor of ‘leading the first cavalry charges of the 21st century.’”<sup>7</sup>

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<sup>7</sup> “ODA Commander’s Brief to Association of the U.S. Army,” Winter Symposium, Ft. Lauderdale, Fla., 5 March 2004.



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Our Special Forces team consisted of 12 soldiers. One week after infiltration we would be augmented with two Air Force attachments.

Our training and mission focus was on conducting Unconventional Warfare. The team was regionally oriented. We had completed several rotations to the Middle East as well as Central Asia, and these experiences would pay great dividends in leading to our selection and our mission success in conducting operations in Afghanistan.

We emphasized heavy cross-training with all members of the detachment, focusing on the basics and Advanced Special Operations skills.

An ODA is organized, manned, and equipped to operate normally in a split-man team, in two six-man elements. We frequently trained in three- to four-man elements.<sup>8</sup>

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<sup>8</sup> Ibid.



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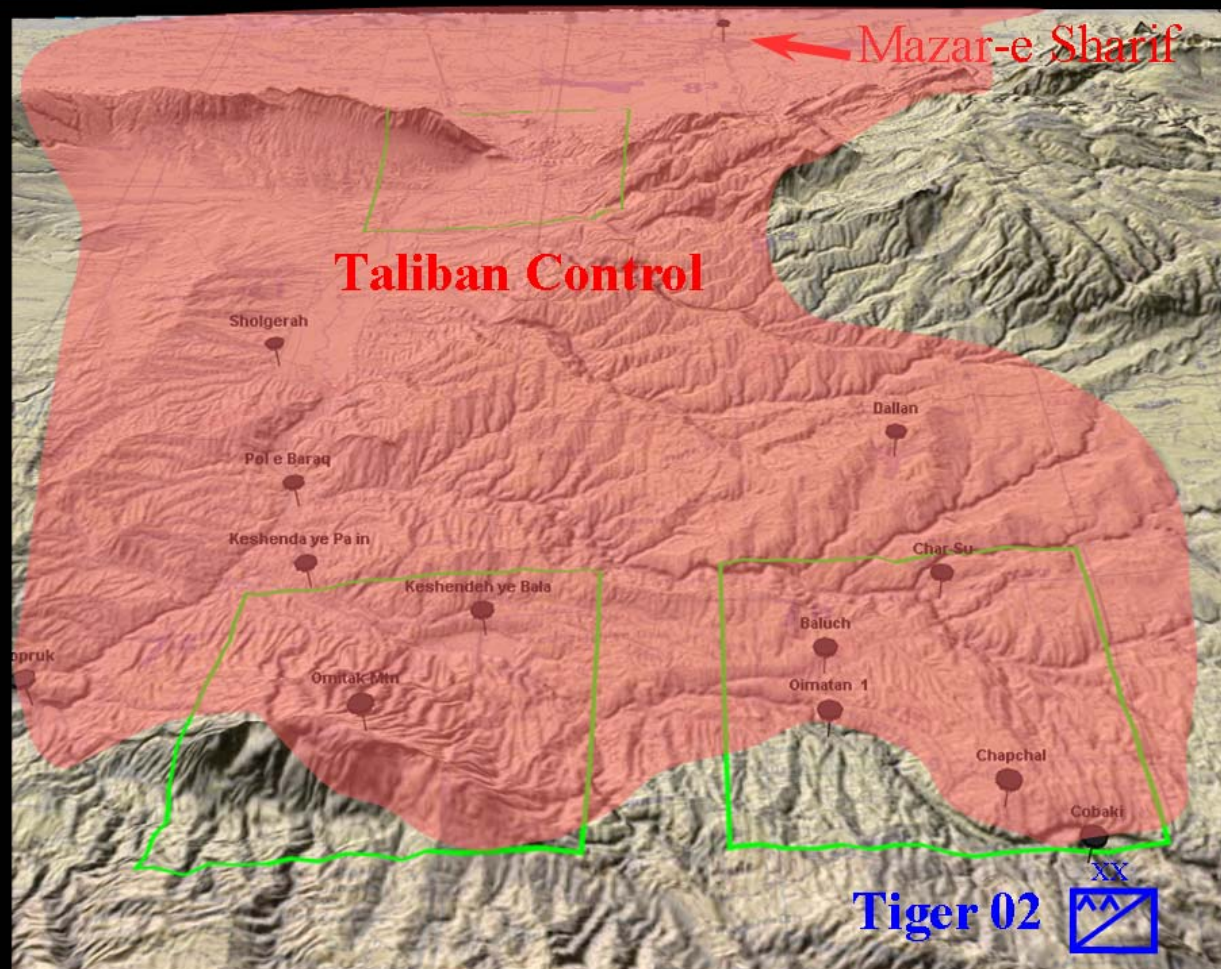
“We did this by empowering and trusting our NCOs to get out there and operate in a very vague and fluid situation, from basically a Commander’s intent, mission statement, and endstate. On 15 October 2001 the team was notified that we had 48 hours until infiltration into Northern Afghanistan.”<sup>9</sup>

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<sup>9</sup> Ibid.



# Tiger 02—Operational Area



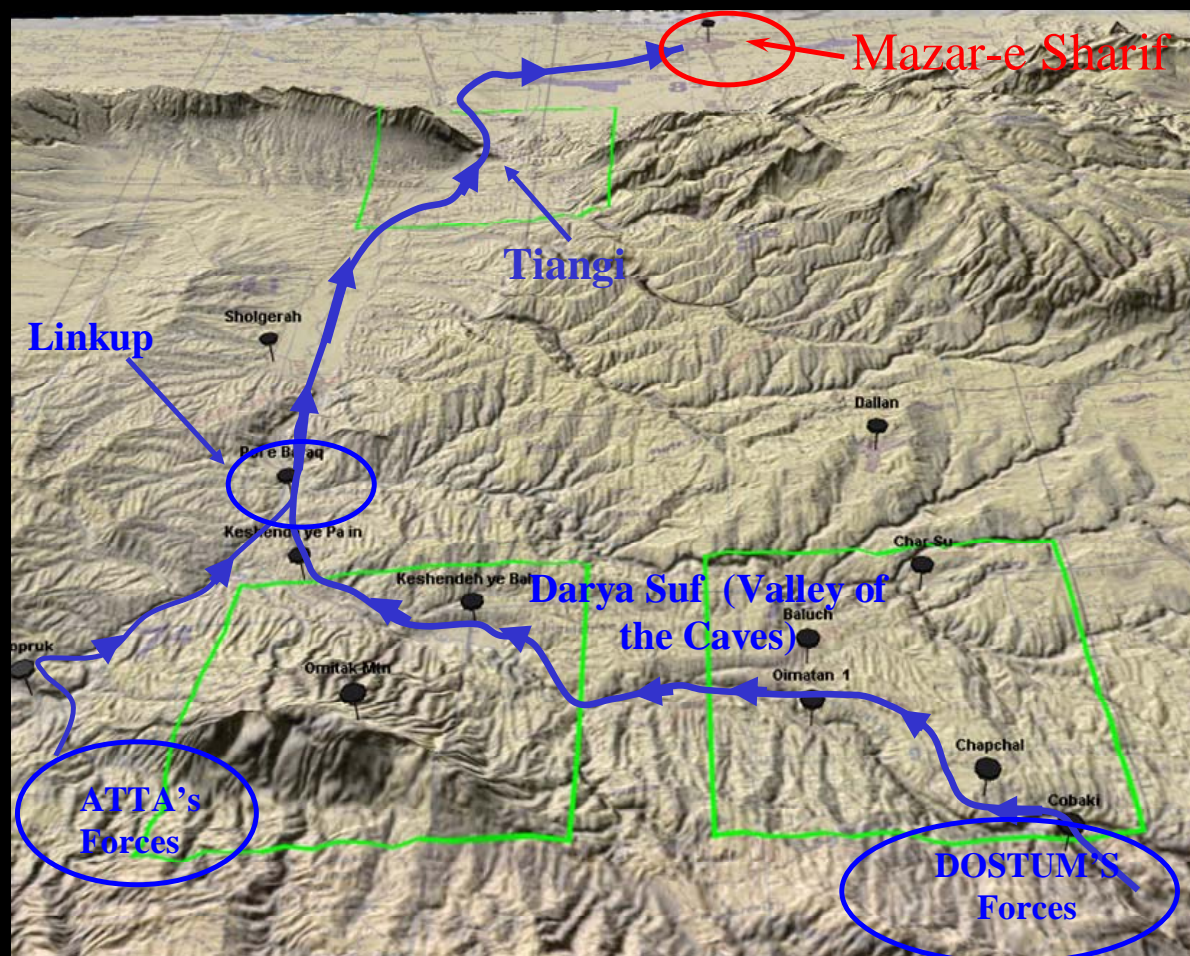


Again, this is the operational area. Mazar-e Sharif to the north. ODA 595, or call sign Tiger 02, was inserted to the southeast near the Afghanistan town of Dehi, where they linked up with General Dostum's forces on 20 October 2001.

They faced Mullah Razzak, the 5th Corp commander, who had 3,000 to 5,000 Taliban forces in this area, to include entrenched infantry, armor, artillery, and air-defense weapons.



# The Plan



The ODA commander discusses General Dostum's strategy:

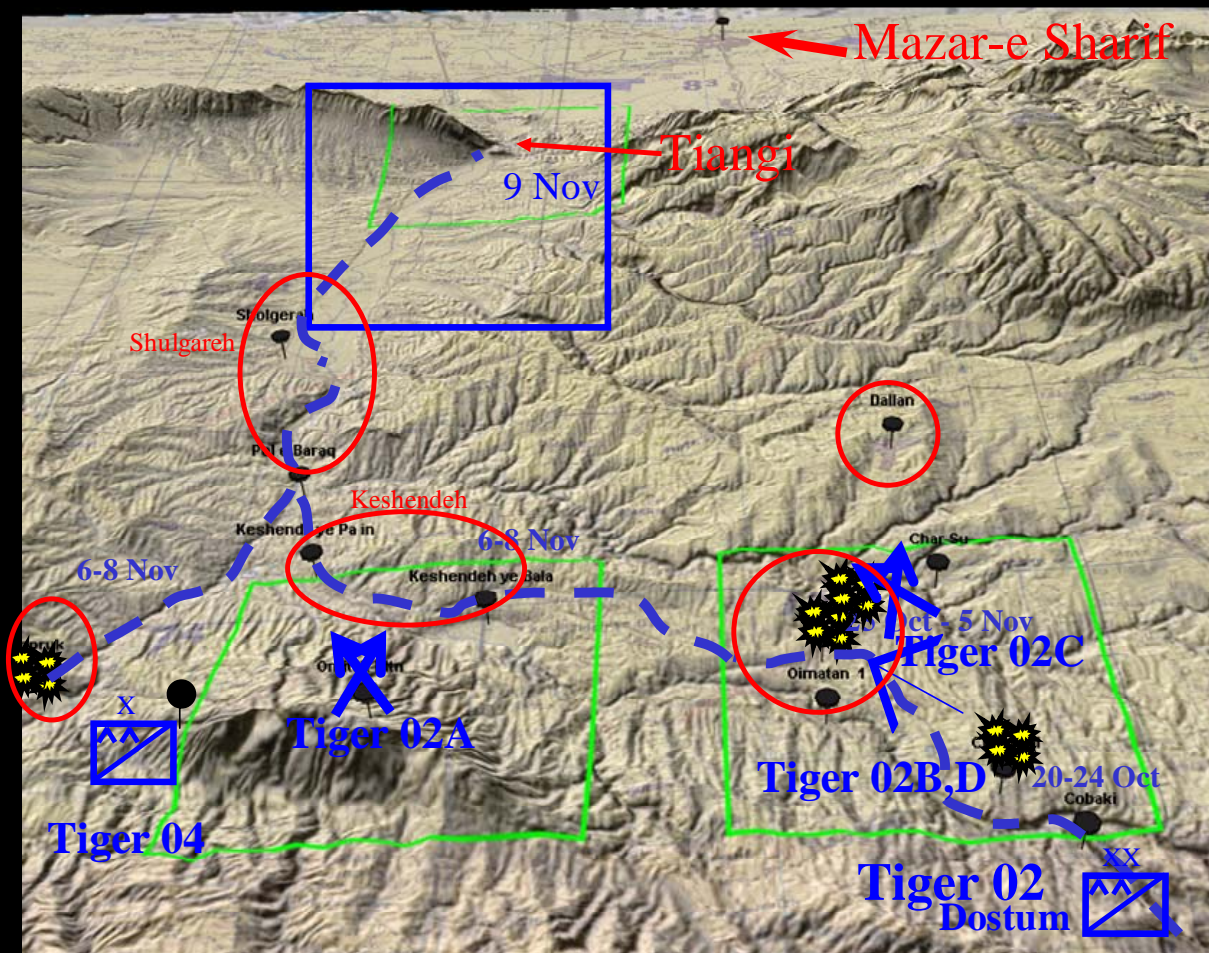
I traveled with General Dostum back to Dehi for the purpose an area command meeting. This is where we bring all these faction leaders together and General Dostum briefs his operations order, which is quite simple. By now, a coordinated attack is to begin on the 5th of November; it's about 5 days from the time we hold this meeting. By now, General Dostum is going to personally lead the now 2,500 horsemen northwest through the Darya Suf Valley. They will be supported by Commander Mohaqiq, the Hazara faction leader who has 500 infantry. Commander Ustet Atta will travel further to the west in the Balkh Valley, and he will personally lead the 1,000 fighters in reducing the Taliban garrison in the city of Ak Kopruk. The two forces will then move north through the valley and they will simply link up at the convergence of the river. My commander said, "You've got to be kidding, there's got to be more to this operations order than that."<sup>10</sup>

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<sup>10</sup> ODA 595 Commander, USA, "Operation Enduring Freedom—U.S. Army Special Operations," Briefing at IDA, 31 May 2002.



## Tiger 02—Operations in the Darya Suf





There were a number of significant engagements that took place as the coalition moved through the Valley of the Caves and Shulgareh to Tiangi. This preview will generally discuss those engagements but focus on the engagement at Tiangi.

Within several days of insertion, Northern Alliance confidence in the accuracy and timing of U.S. munitions allowed horse-mounted Northern Alliance to begin their charge on Taliban armor and defensive positions while bombs were in the air, often passing through smoke and shrapnel to secure their objective. The battles at Beshcam and Chapchal on 20–24 October 2001 were hailed as the first cavalry charges of the 21st Century.

To support General Dostum's strategy to take the Darya Suf, the ODA Commander positioned Tiger 02A to the west to interdict Taliban reinforcements in the Keshendeh areas and those coming down through the Shulgareh. Tiger 02C was positioned to the north near Charsu to protect the northern flank against Taliban counterattacks from Dallan and Darreh-ye Dadel. Tiger 02D and B were positioned to support the main attack. In addition, on 3 November, ODA 534, call sign Tiger 04, was inserted to support General Atta to the west. On 5 November General Dostum's forces struck the Baluch area as General Atta attacked Ak Kopruk. Breaking the back of the Taliban was attributed to these attacks. On the 8th they linked up in Shulgareh and moved to the Tiangi.

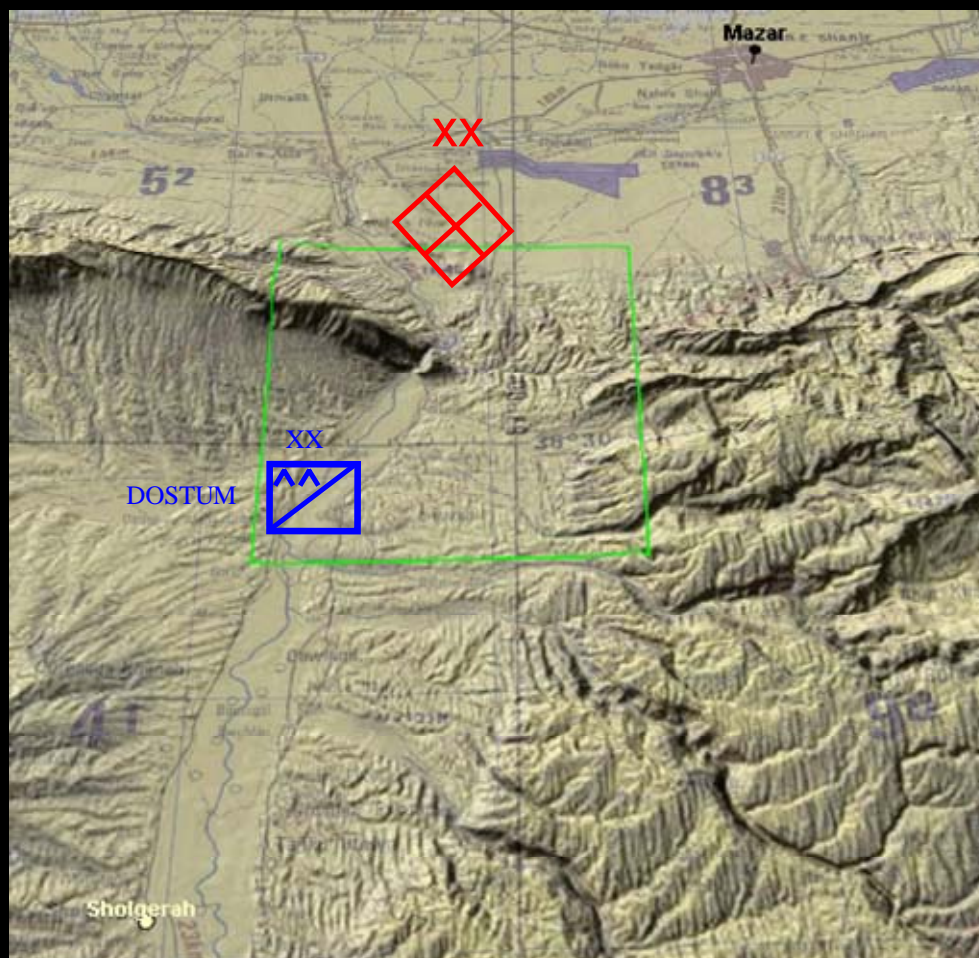
This is the area of operations for 9 Nov 2001.<sup>11</sup>

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<sup>11</sup> Blue and red force data for this slide and subsequent slides were taken from various sources: (1) interviews with General Dostum, his subcommanders, and General Bullah, former Taliban; and (2) the Battle Site Survey Team visit in December 2002, during which locational data, including Red Force battle damage and Blue Force (ODA Team and Northern Alliance) positions and movement, were recorded.



## 9 November—Initial Situation

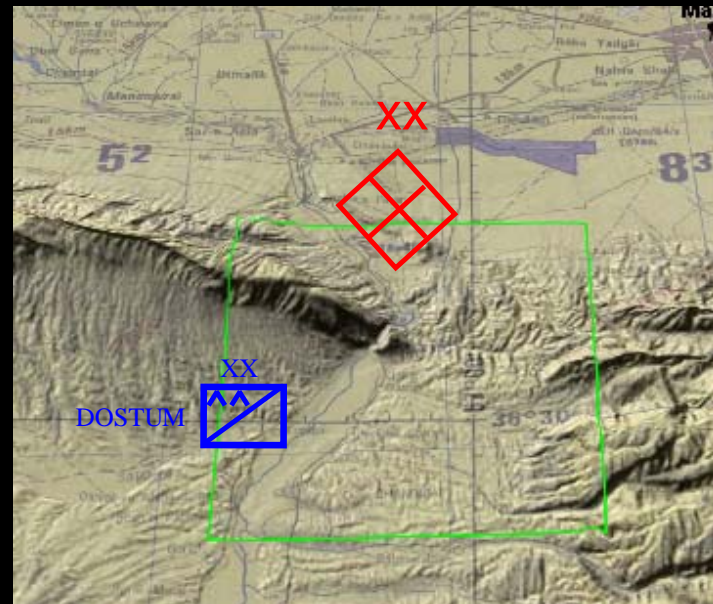




When the coalition forces arrived on the evening of 8 November, the enemy had forfeit the high ground and set up their last-stand defenses on the north side of the Tiangi.



## General Dostum's View of his Opponent



**GEN Dostum (translator: Esam):**

**“I knew that they didn’t know the strategy of war, because in a war you should take higher positions, but they were based mostly in the lowest positions so it means that they have no knowledge of war and the strategy...they were just deceived. They were so emotional that...they had just come to fight.”**

General Dostum comments on the Taliban positioning (translator: Esam): “I knew that they didn’t know the strategy of war, because in a war you should take higher positions, but they were based mostly in the lowest positions so it means that they have no knowledge of war and the strategy...they were just deceived. They were so emotional that...they had just come to fight.”<sup>12</sup>

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<sup>12</sup> General Rashid Dostum, interviewed at Tiangi, Afghanistan, 10 December 2002.



# Tiger 02 Perspective



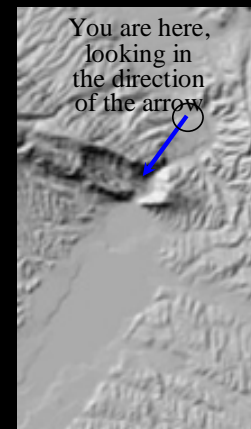
The ODA Commander describes the terrain, Taliban disposition, and the dangers presented by that narrow pass: That gap is about a quarter of a mile or less wide and 2 miles long. The Taliban had set up a reverse-slope defense where they are defending on the far side. They gave the Northern Alliance and us the high ground. They had employed extensive mines; that BM-21 rocket launched artillery with some success, and they were employing ZSU 23-2s in a direct-fire role. They were firing those 23 mm shells down the north end of that canyon and those rounds just ricocheted down the canyon. Northern Alliance morale was going down rapidly at this point. This is where we suffered the majority of our casualties.<sup>13</sup>

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<sup>13</sup> ODA 595 Commander, USA, “Operation Enduring Freedom—U.S. Army Special Operations,” Briefing at IDA, 31 May 2002.



# Initial Push Into the Tiangi





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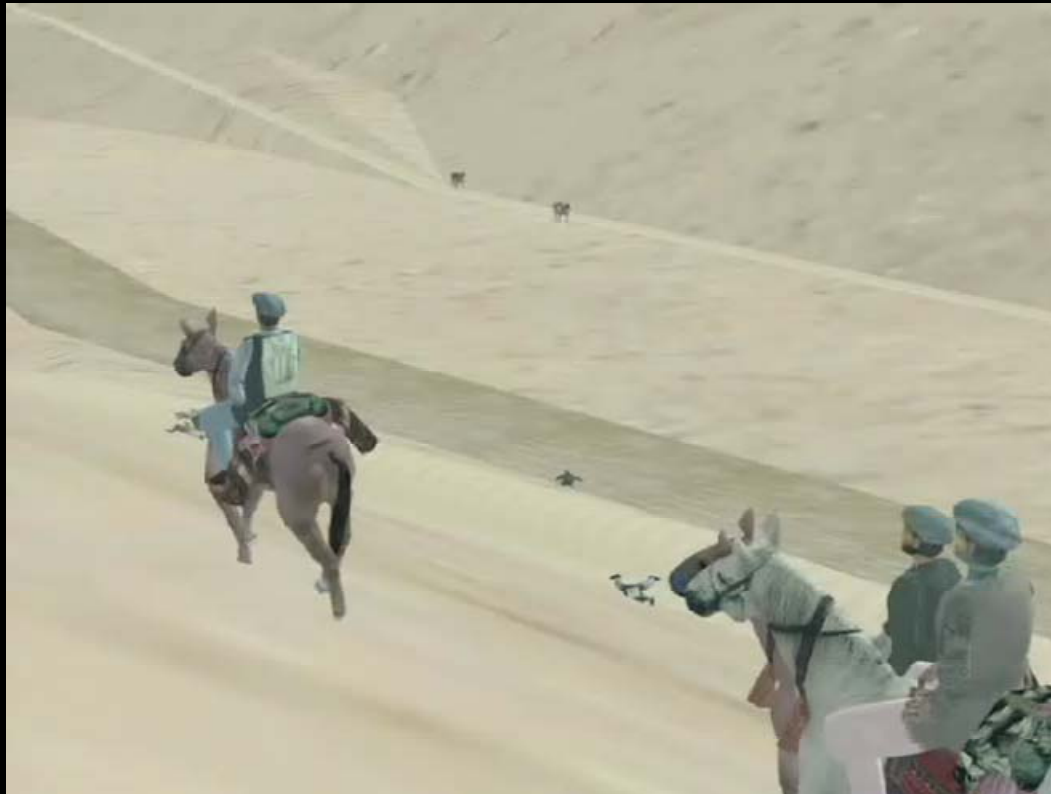
They effectively mined the pass: “Out on the far side of the pass about six troops had been killed by stepping on mines.”<sup>14</sup>

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<sup>14</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



## Northern Alliance Forces Seek Cover





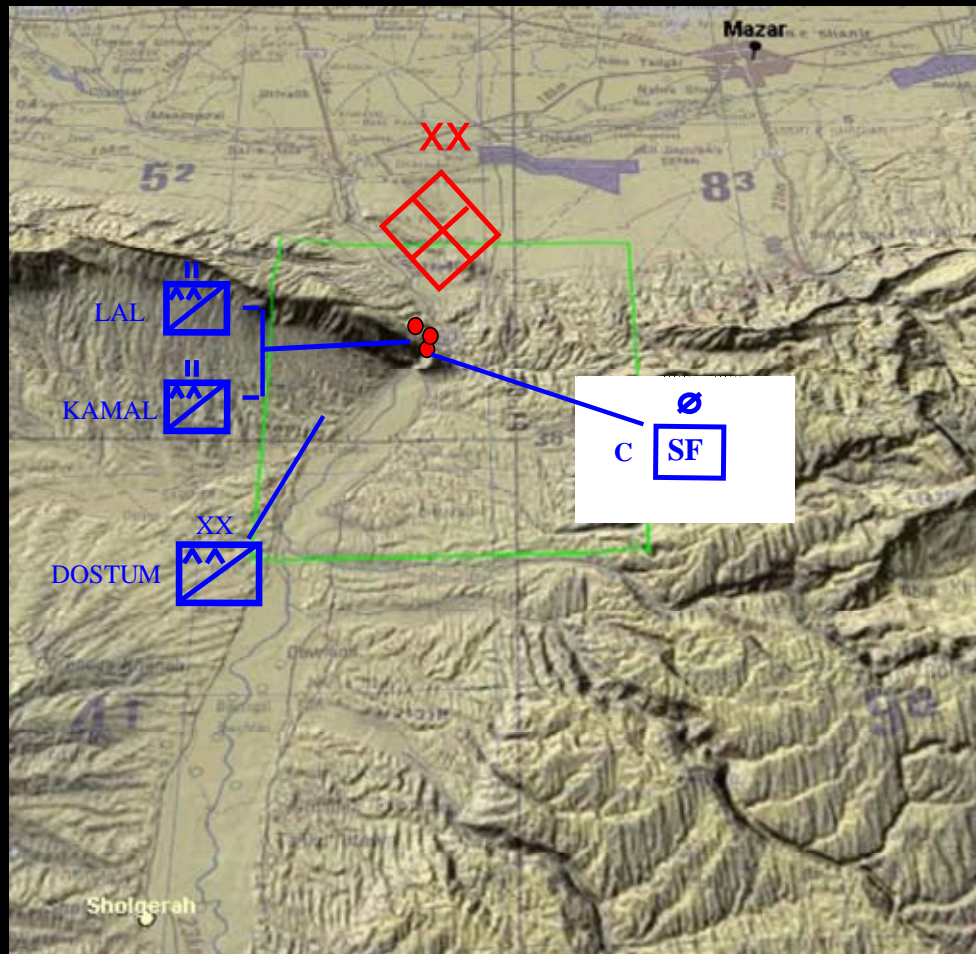
Even the river was mined: “There were mines in the river crossing. The horsemen had tried to cross the river. There were dead horses and troops in the water.”<sup>15</sup> As the ODA Commander indicated, it was demoralizing for the Northern Alliance to see their comrades coming out of the Tiangi on stretchers.

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<sup>15</sup> Ibid.



## Tiger 02C Moves to the Kafer Qalah





Early on the morning of the 9th, the Northern Alliance forces were pinned down in the pass. The detachment operations sergeant, now the cell leader for Tiger 02C, took his cell to the top of the Kafer Qalah. His mission was to call for fires on the Taliban defenses north of the Tiangi.



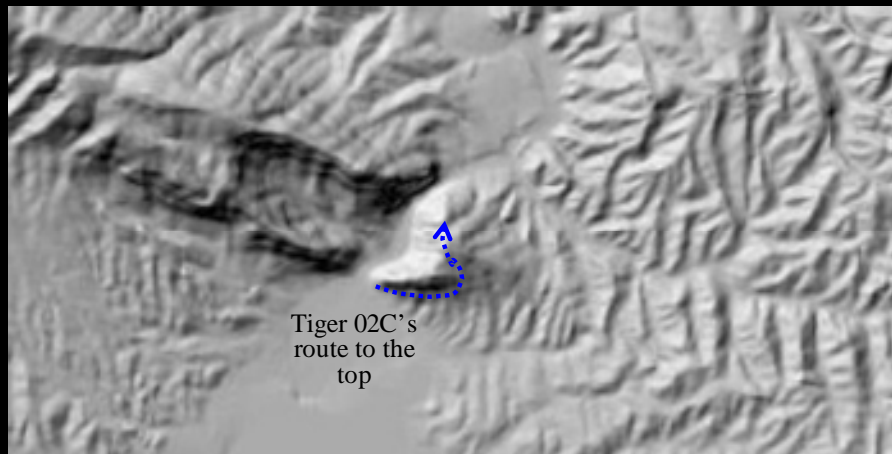
# Tiger 02C Moves to the Kafer Qalah



Looking  
north  
from the  
Kafer  
Qalah



Walking  
up the  
Kafer  
Qalah



Tiger 02C's  
route to the  
top



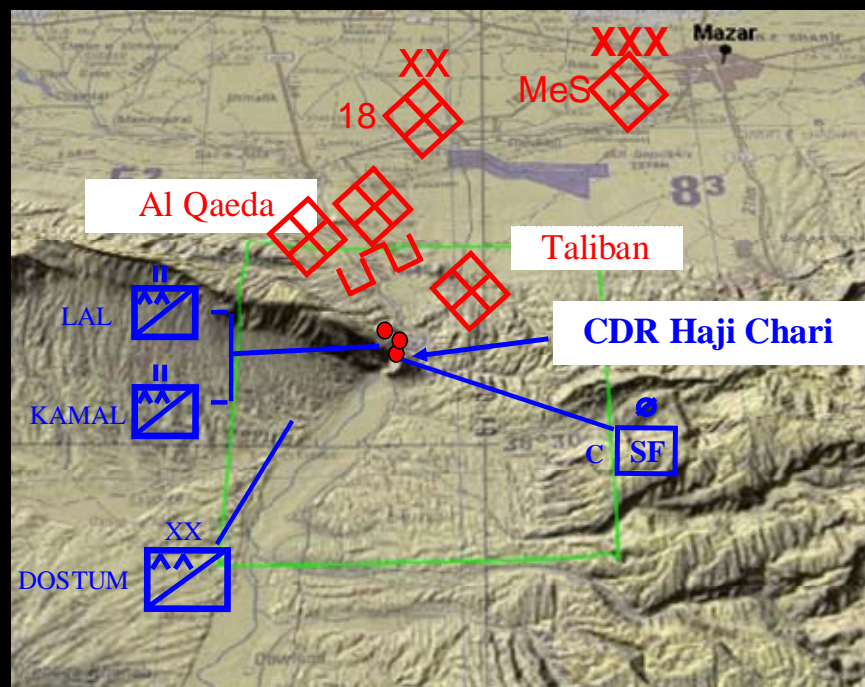
The Tiger 02C Cell Leader describes his movement to the top: “We get to the foot of that and then we had to basically walk up this 2,621 foot mountain in the middle of the night. We get up there, and there is about a squad worth of guys at the top. It’s pitch black and cloudy and you can’t see anything.”<sup>16</sup>

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<sup>16</sup> ODA operations sergeant and Tiger 02C cell leader, interviewed at Fort Campbell, Kentucky, 22 January 2003.



# Taliban Disposition



**Commander Haji Chari (translator: Hafiz):**

**“The next morning we started our attack on the enemy’s force and on our side of the river were Taliban and the left side were Al-Qaeda foreigner Taliban.”**

Commander Haji Chari who was with Tiger 02C atop the Kafer Qalah, discusses the disposition of Taliban forces (translator: Hafiz): “The next morning we started our attack on the enemy’s force and on our side of the river were Taliban and the left side were some Al-Qaeda foreigner Taliban.”<sup>17</sup>

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<sup>17</sup> Commander Haji Chari, interviewed at the Kafer Qalah, 10 December 2002.



# Tiger 02C on the Kafer Qalah





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The Tiger 02C Cell Leader, also atop the Kafer Qalah, describes weather conditions on the morning of the 9th and their planning for the initial missions:

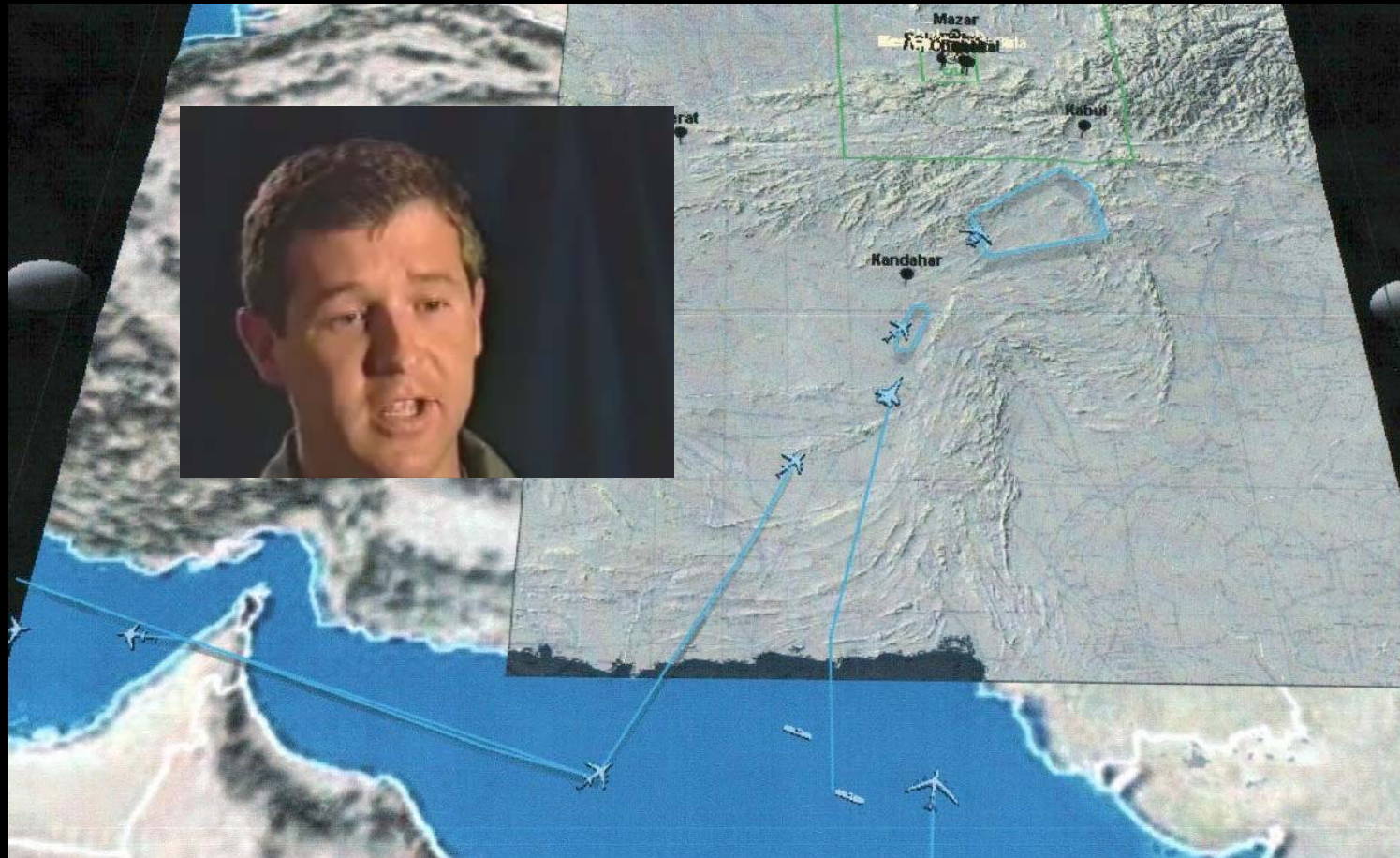
Morning came in and it was overcast—we were in the clouds. We were having a hard time seeing anything until 9 or 10. We were on the high ground at some 2,000 feet. From up here we were looking down into their fighting positions. We set it up where it was going to be one-two-three.<sup>18</sup>

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<sup>18</sup> ODA 595 Operations Sergeant and Tiger 02C Cell Leader, interviewed at Fort Campbell, Kentucky, 22 January 2003. ODA and Northern Alliance spoke in terms of “local” time. In many cases, those times were approximate unless the events could be corroborated with a recorded event, such as an airstrike.



# Air Operations Northern Afghanistan





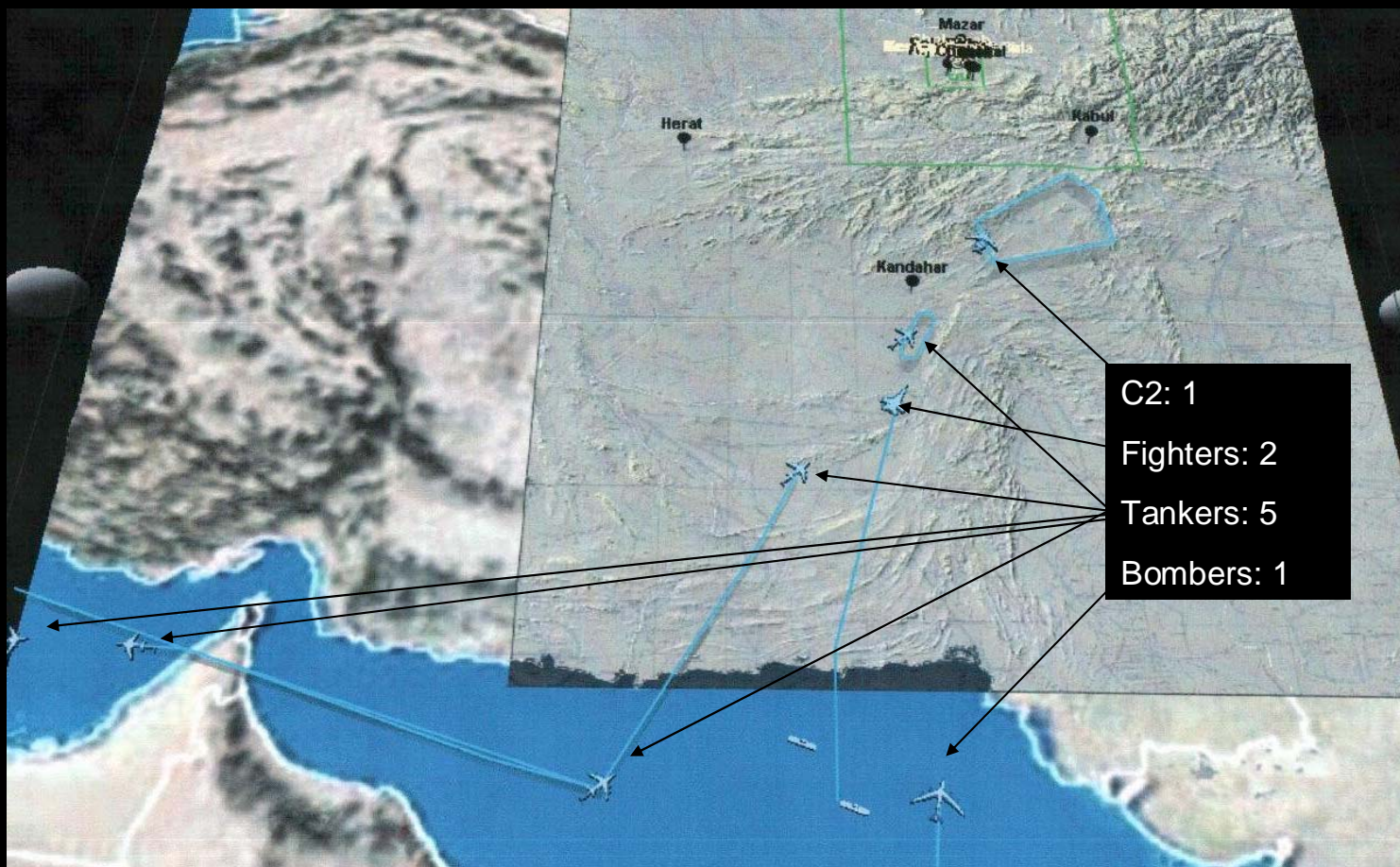
But the air picture was more complicated than one-two-three. Command and control and tankers had to be positioned to support the inbound aircraft. A Navy fighter pilot comments on the difficulties in operating in the northern parts of Afghanistan. “What we would generally do is tank in the southern portion of the country, maybe even in the Pakistan airspace; fly all the way to the northern portion of the country, get some more gas, go do our target area work, get gas again, gas one more time in southern Afghanistan, and then ultimately head home.”<sup>19</sup>

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<sup>19</sup> U.S. Navy Fighter Pilot, USN, interviewed at Beauford, South Carolina, 12 June 2003.



# 090125Z Air Operations

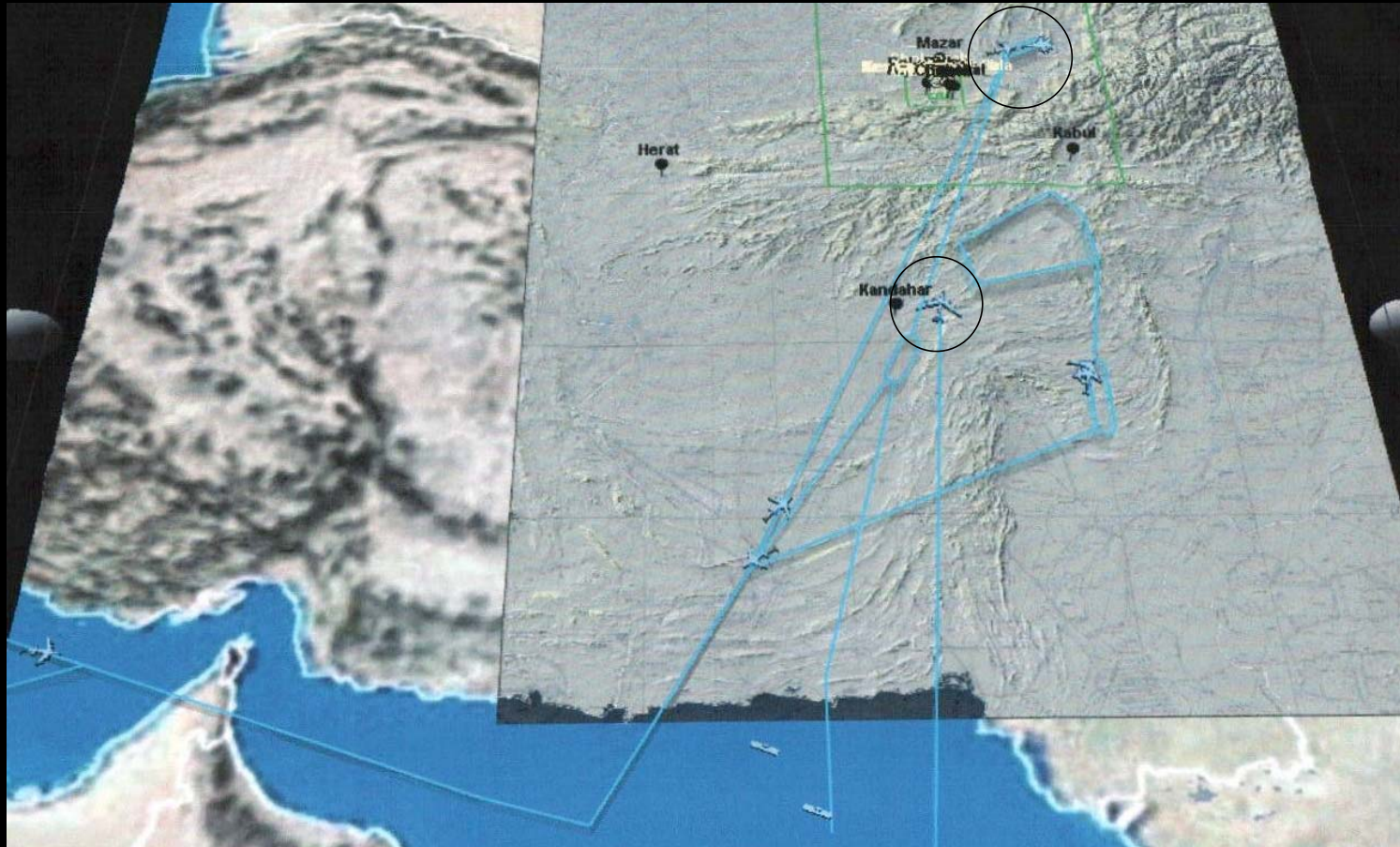




This is the air picture at 0125Z 9 November. The box on the right shows the Aircraft supporting the fight in the north. An E3C for command and control was located north east of Kandahar. Two F-14s departed the Carl Vinson for Mazar, a 710-nautical-mile journey requiring two refuelings. Their first stop is with a KC-10 orbiting mid-country. A tanker (KC-135) currently behind the F-14s is repositioning to the east of Mazar to provide the second refueling for the F-14s. There are three other tankers in orbits to support aircraft coming from Diego Garcia, the Gulf area, and the carriers. A B-52 from Diego Garcia, a 2,600 nautical mile journey to northern Afghanistan, will refuel once before entering the target area



# 090248Z Air Operations



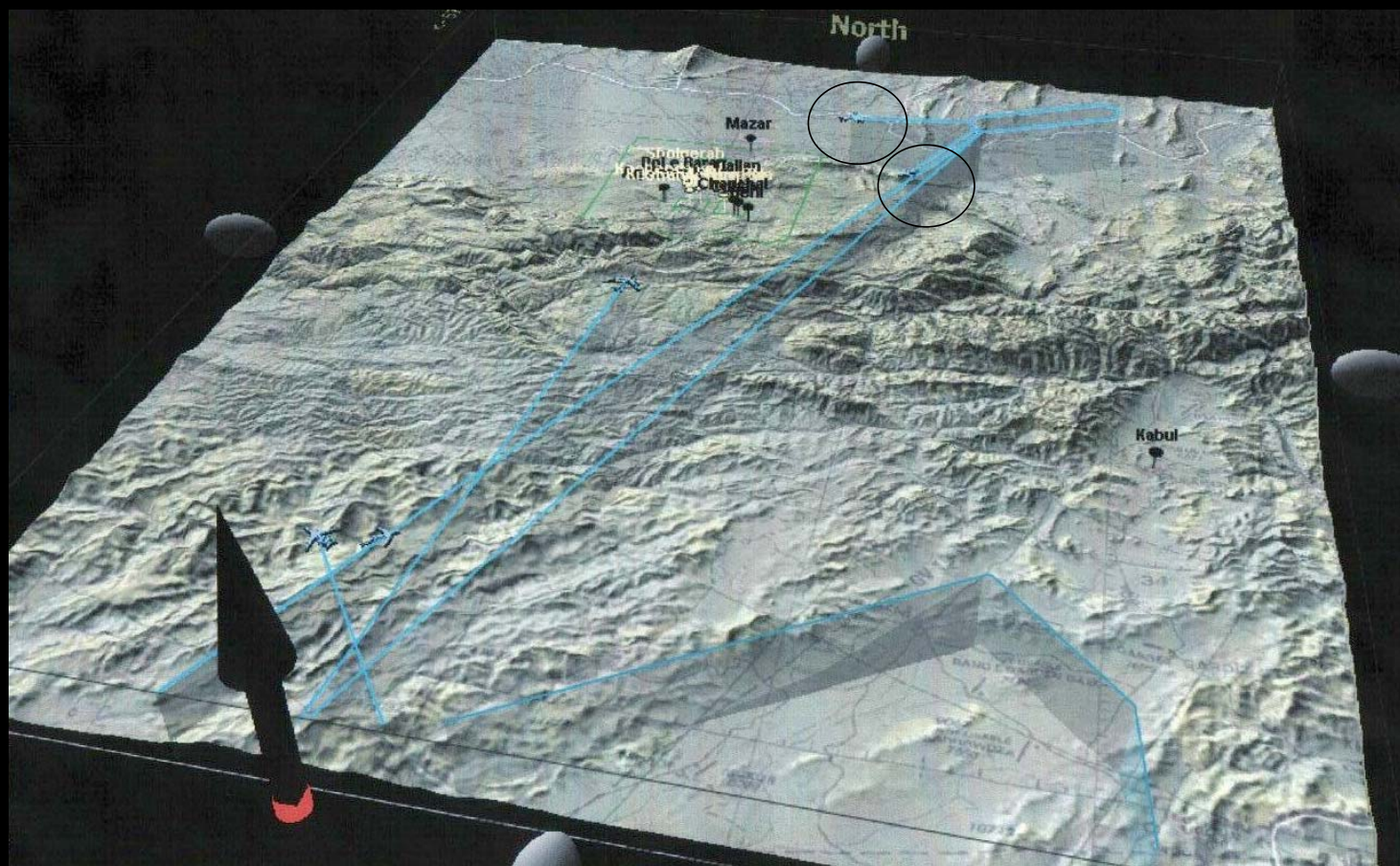


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At the top of the screen are the two F-14s refueling from the KC-135 east of the target area. The bomber is still inbound.



# 090325Z Air Operations



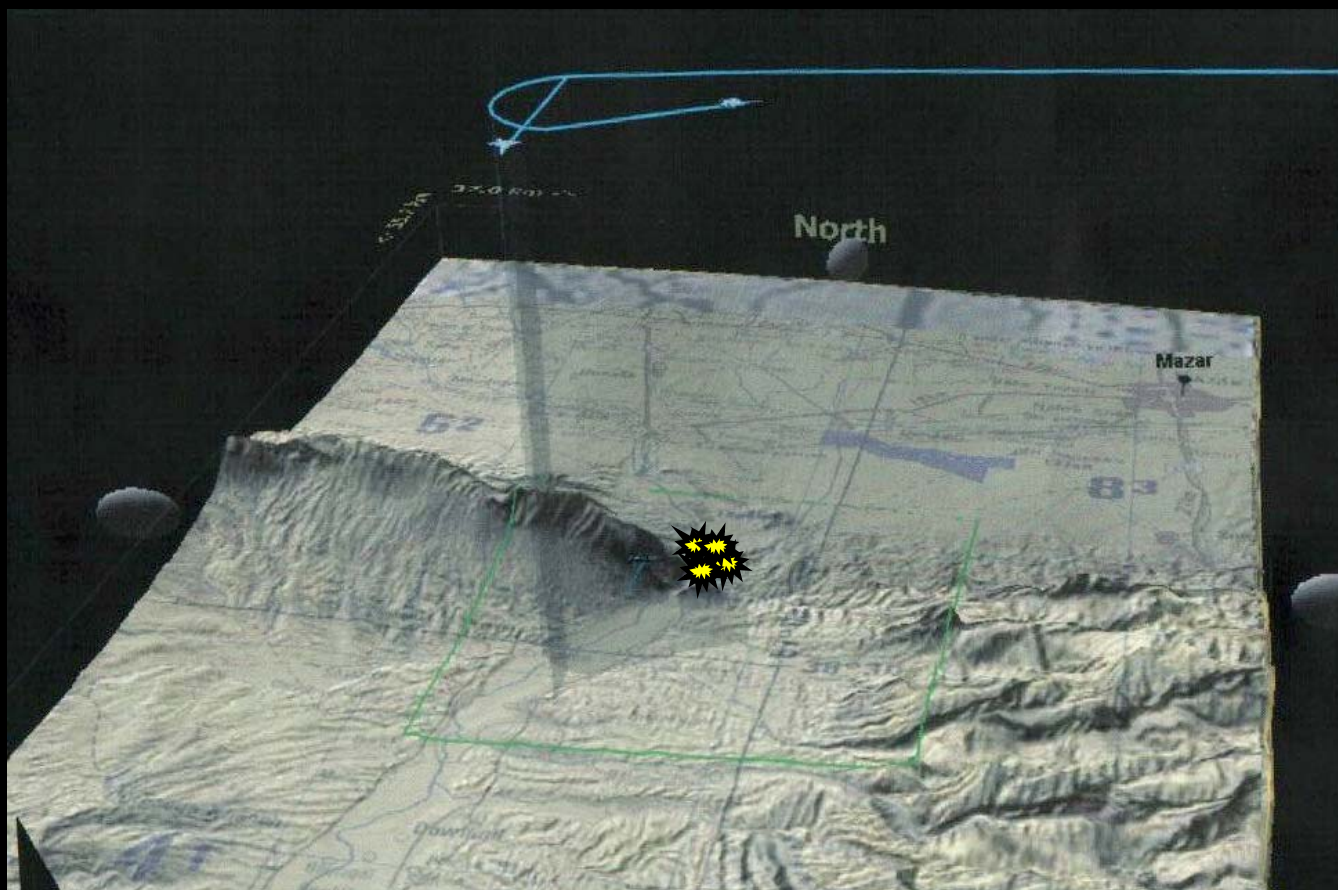


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It's 0325Z, and the F-14s depart refueling to the west for the target area and contact Tiger 02C. The KC-135 departs the refueling orbit. The tanker will set up another refuel point to the south of Mazar to support the F-14s as they egress the area.



# 090333Z Wakeup Call

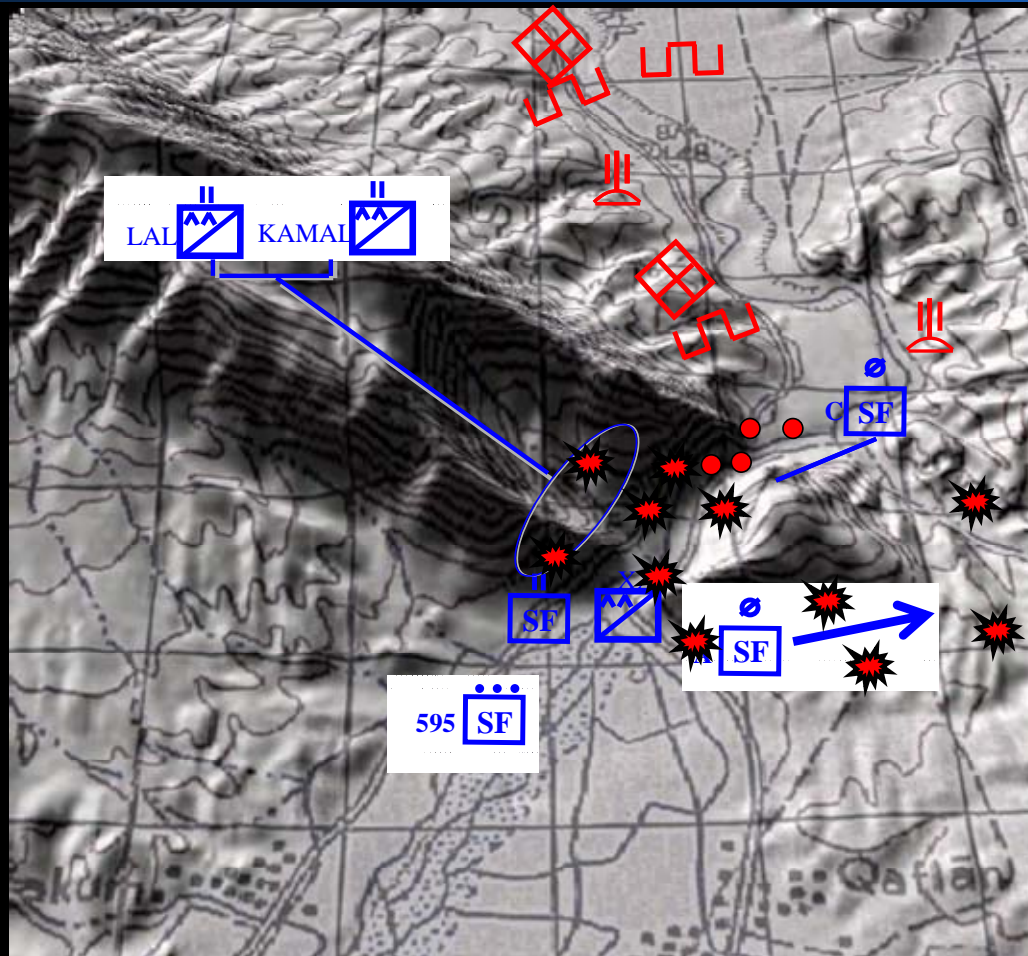




It's 0333Z and the F14s are on target. Tiger 02 affectionately calls this the Taliban's wakeup call. They drop several precision bombs (GBU 16s) and General Purpose Bombs (Mark 83s). Within the next hour, the B-52 releases approximately 50 General Purpose Bombs (MK82s)



# The Taliban Strike Back





By 1200 the rest of ODA 595 was briefed on the mission. As Tiger 02A deployed to the east they were caught in the midst of a devastating rocket attack.



# Tiger 02A Location





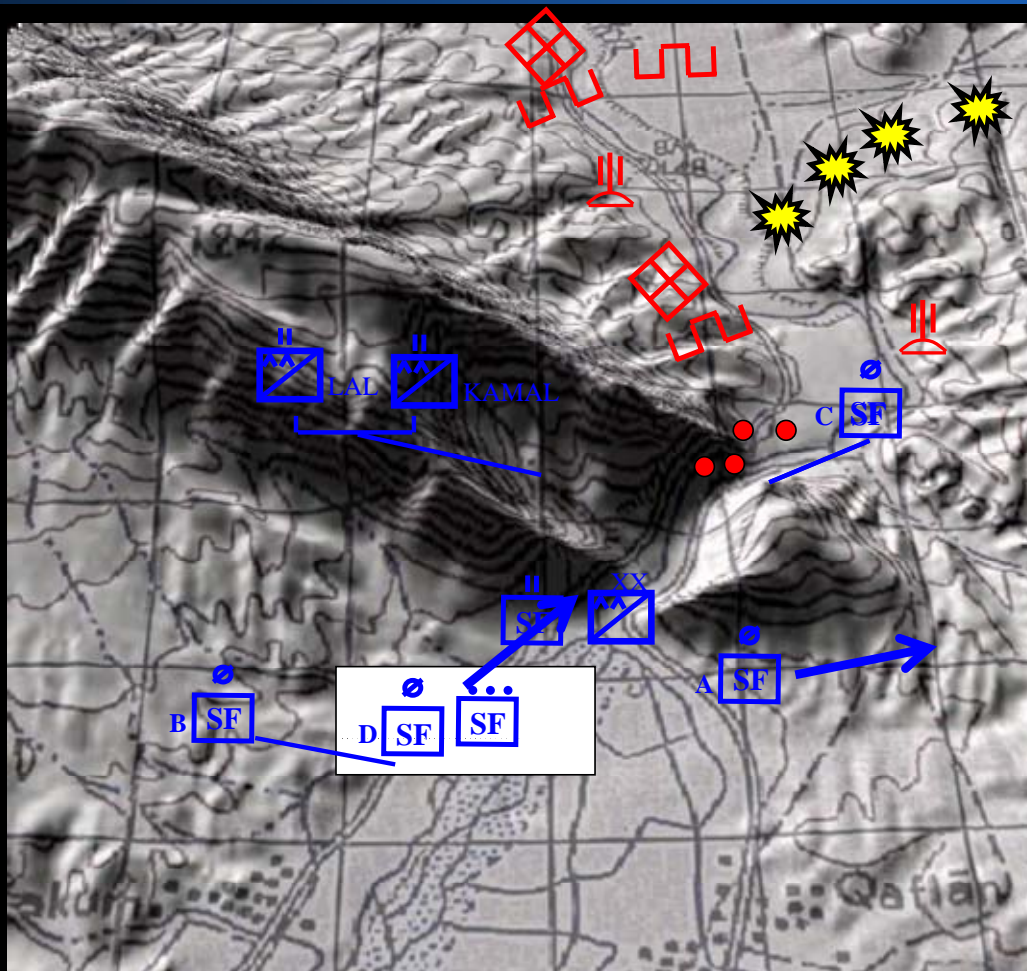
The ODA Commander describes the attack: “It was around 1500 in the afternoon and the whole area just erupted through there in big dust clouds and dirt and debris, and I thought for sure that our three guys from our team had been killed. I knew that General Dostum had come up here very close to it. We couldn’t raise anybody on the radio.”<sup>20</sup>

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<sup>20</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



# Tiger 02 Moves to the Tiangi



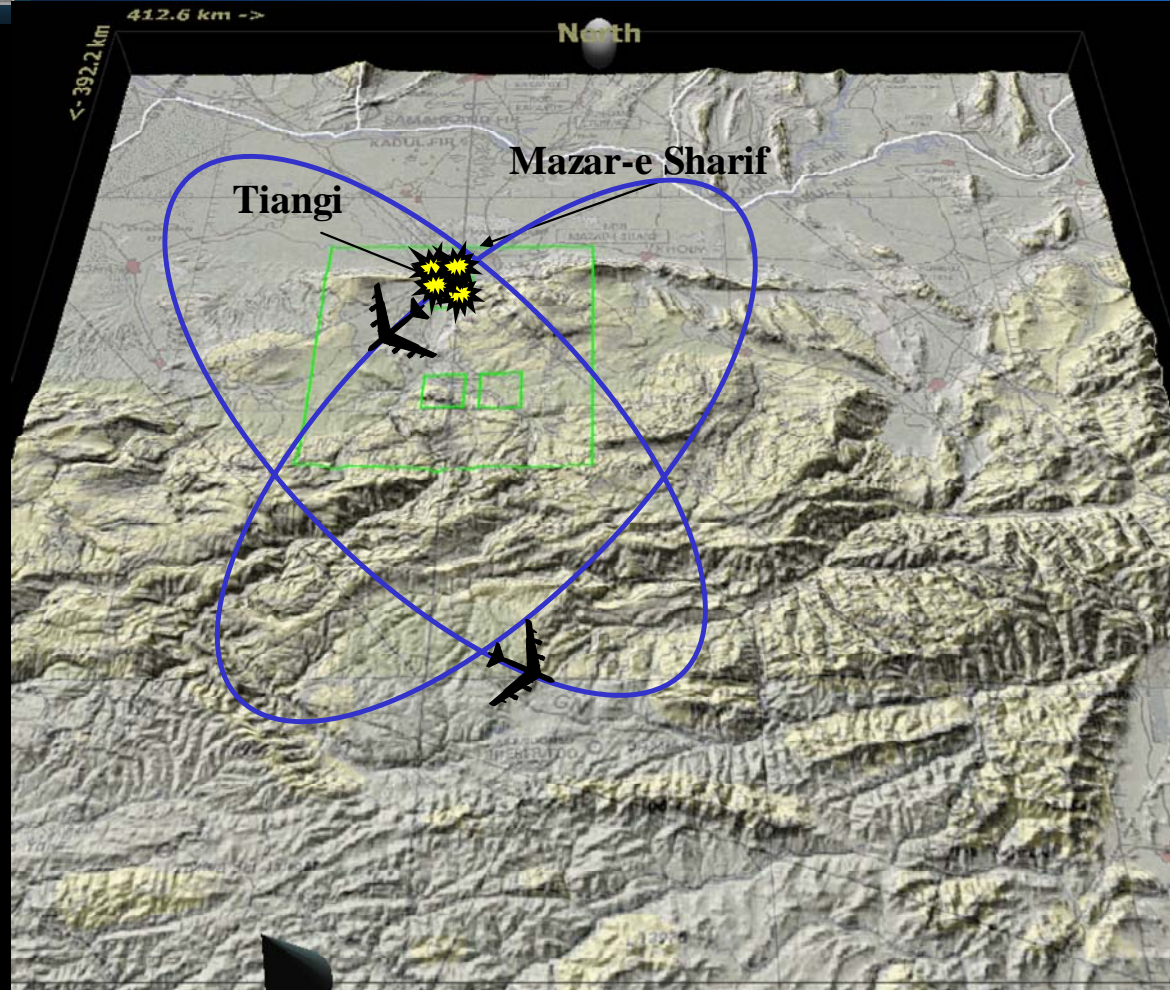


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Concerned about his troops and General Dostum, the ODA Commander mounts up with elements of Tiger 02D and at a gallop approaches the Tiangi. At that time Tiger 02C is in contact with a B-52 and targets Taliban defenses.



# B-52 (2) Support at the Tiangi

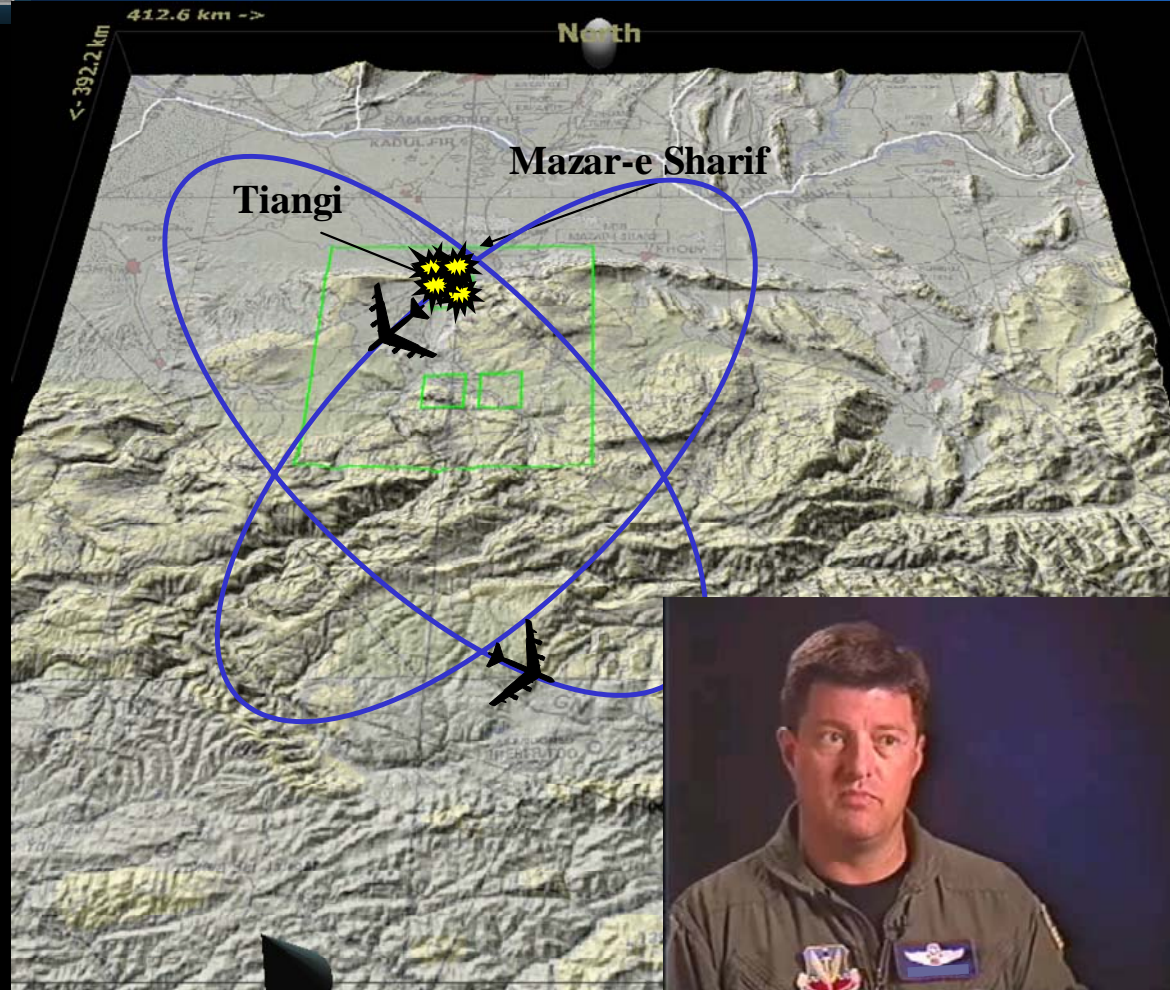




Actually, there are two B-52s overhead supporting the battle, and they are loaded with Joint Direct Attack Munitions, or JDAMS.



# B-52 (2) Support at the Tiangi





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A B-52 Pilot that supported Tiger 02 in Mazar comments on the necessity of the ground forces to put eyes on the target: “We had the precision weapons, we had the communications systems, but until you had a set of eyes on the ground to make everything fit together, it was the key piece of the puzzle as far as getting the weapons on the targets they needed to be on to make a difference in the conflict.”<sup>21</sup>

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<sup>21</sup> B-52 Pilot, USAF, interviewed on 21 May 2003.



# Strikes Increase in Intensity





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The weapons expert with Tiger 02C gives his perspective of the strike:

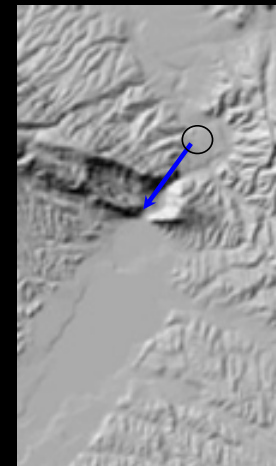
We had a B-52 that was waiting...he had 25 JDAMs. He used 12 on this pass. There were about 20 guys up here...he covered the whole hilltop. Whoever survived was running to the west, trying to get to Mazar, and there were a good 20 or 30 guys, and we just set up a box and he dropped his last 13 rounds. It was in the middle of the box.<sup>22</sup>

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<sup>22</sup> ODA 595 Weapons Sergeant with Tiger 02C, interviewed at Fort Campbell, Kentucky, 22 January 2003.



# Alliance Rallies Behind Tiger 02





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In the meantime, the ODA Commander has entered the pass and describes the Northern Alliance soldiers falling in behind them:

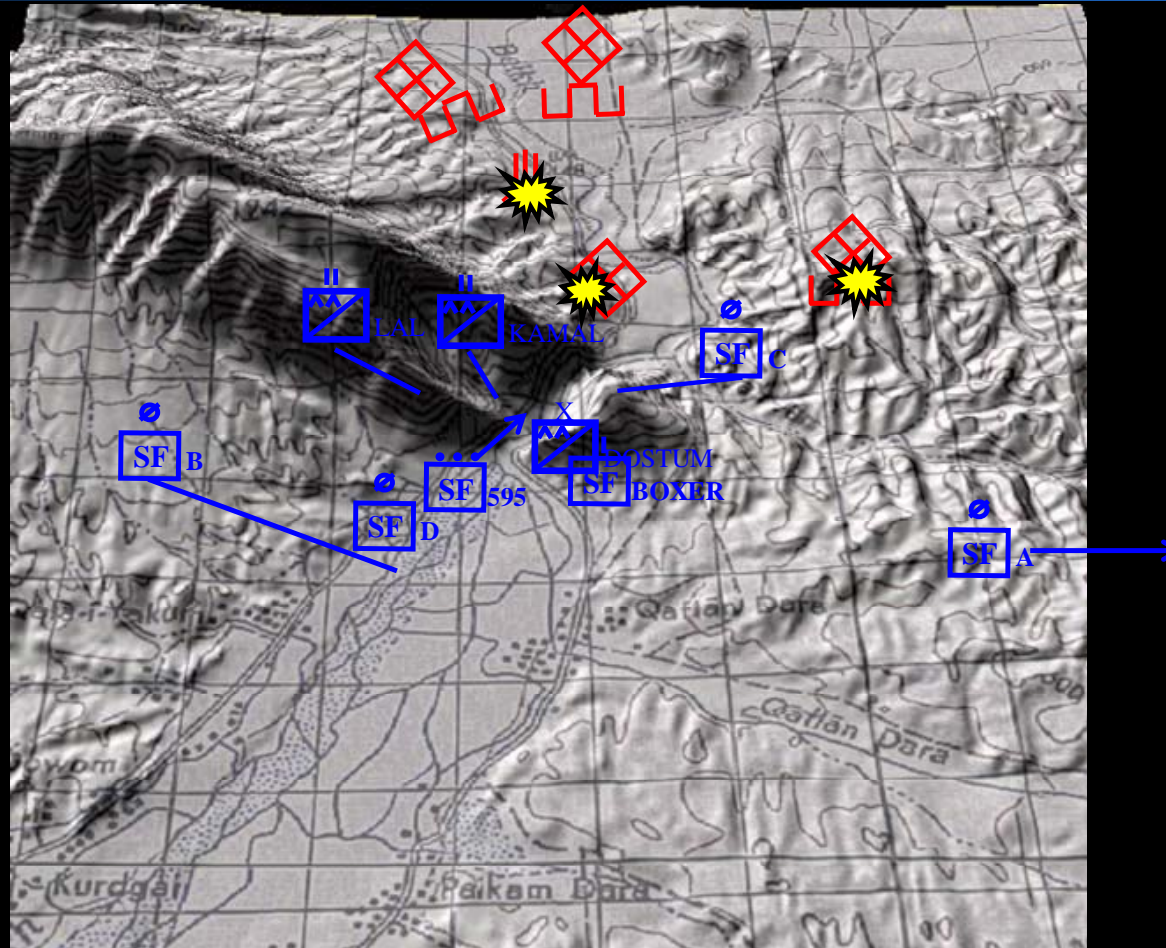
This little cave off to the left...From there up to the point where the rocks are there were just hundreds of soldiers taking shelter in the rocks from the volleys. As they saw us coming on horseback, they came down and lined both sides of the road for several hundred meters there, some of them on foot, some of them on horseback, but as we rode through the pass they just jumped onto the road behind us.<sup>23</sup>

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<sup>23</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



# Targeting Taliban North of the Gap

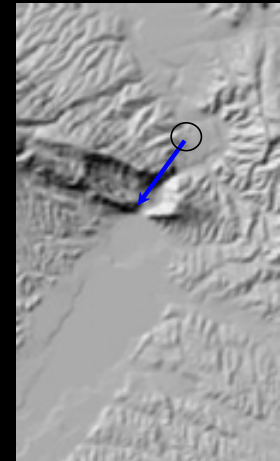




Northern Alliance movement through the pass, along with air support pounding the Taliban defenses, starts to show signs of success.



# Midway Through the Tiangi





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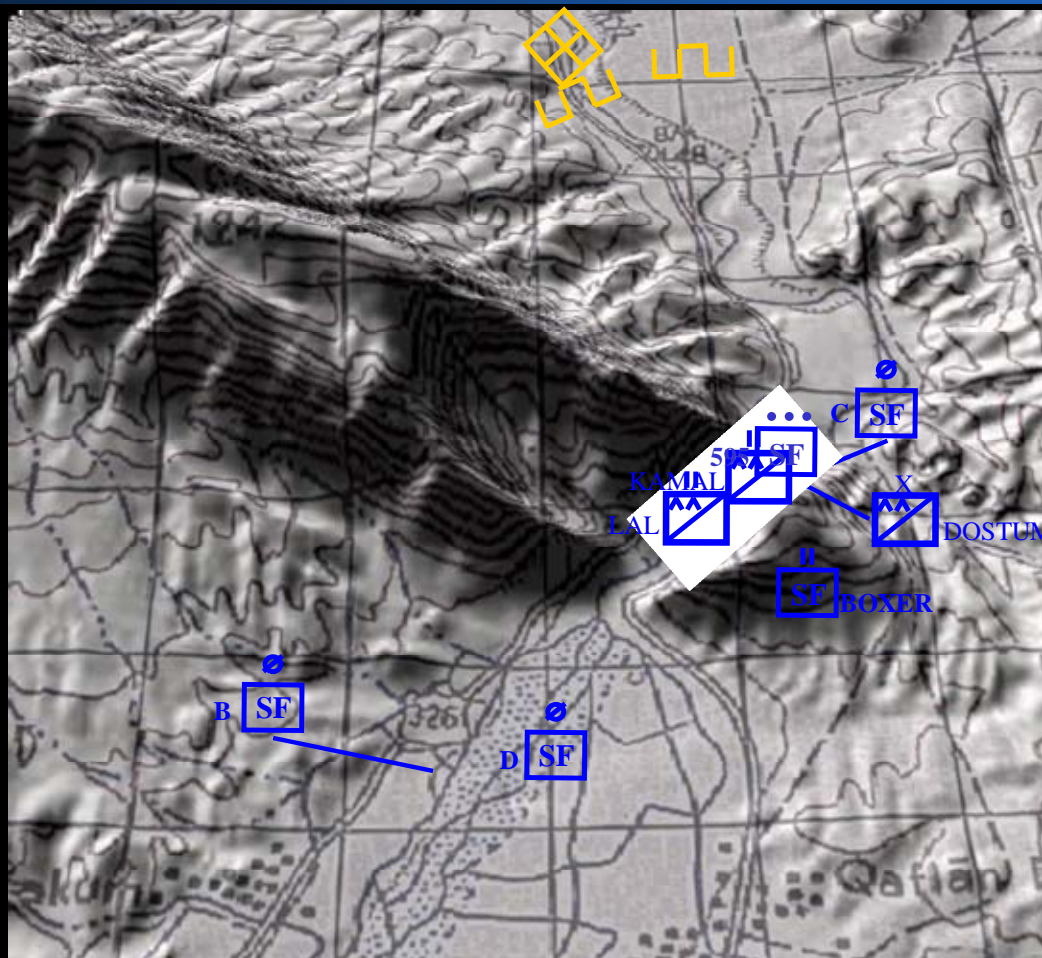
The ODA Commander links up with Commander Kamal in the pass: “We found him up there on the left, and he was extremely upset that we were that close in the fight and wanted us to turn back, and we had all of these troops with us.”<sup>24</sup>

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<sup>24</sup> Ibid.



# Breakthrough

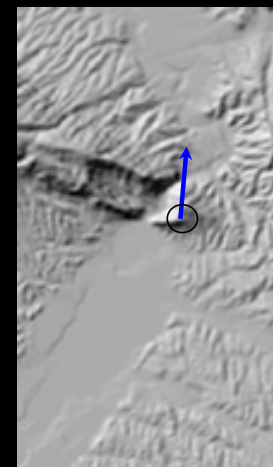




Despite Commander Kamal's concern, the ODA Commander, with his vanguard of Northern Alliance horsemen and foot soldiers, continued to move forward.



# The Road to Mazar is Open



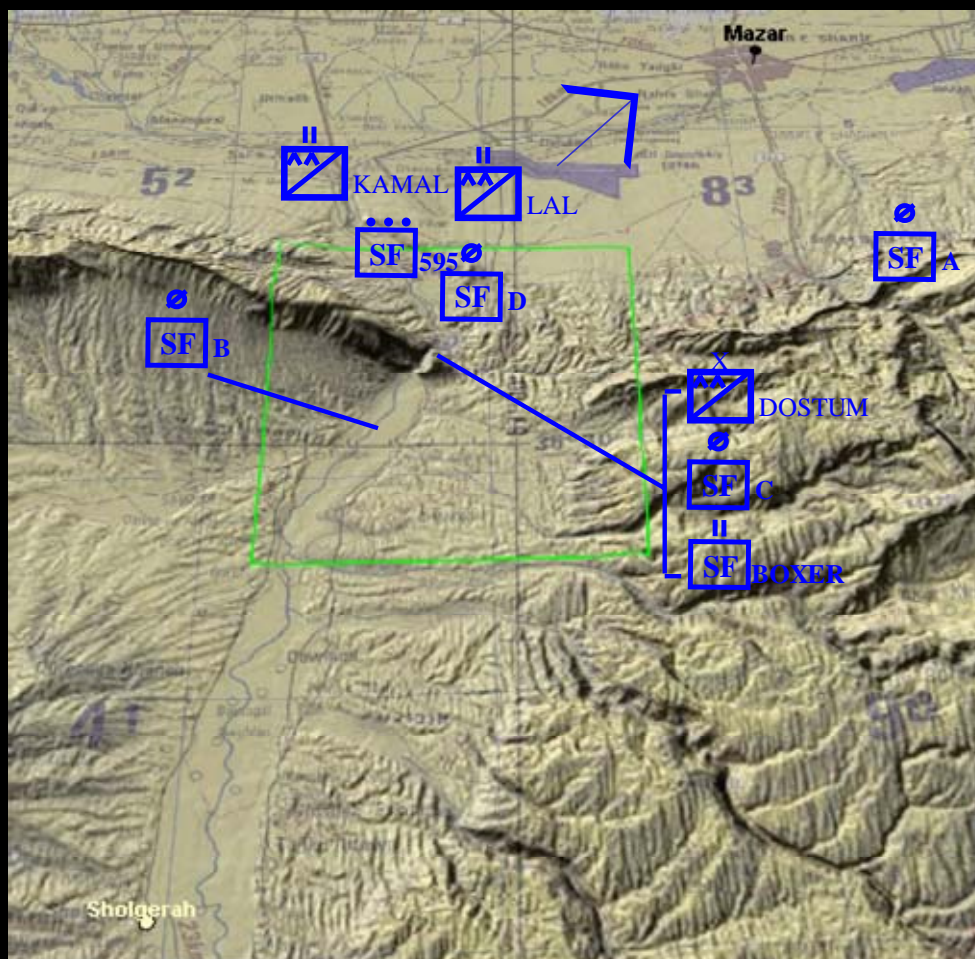
The ODA Commander describes the movement of forces through the Tiangi: “As Dostum’s forces are pushing up to the gap, each side of the gap, and through the gap, Commander Atta is following with his forces to push through the gap once the gap is secured. This is finally done on the night of 9 November, and Dostum and Atta’s forces push up to the outskirts of Mazar-e-Sharif.”<sup>25</sup>

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<sup>25</sup> Ibid.



# End of Day

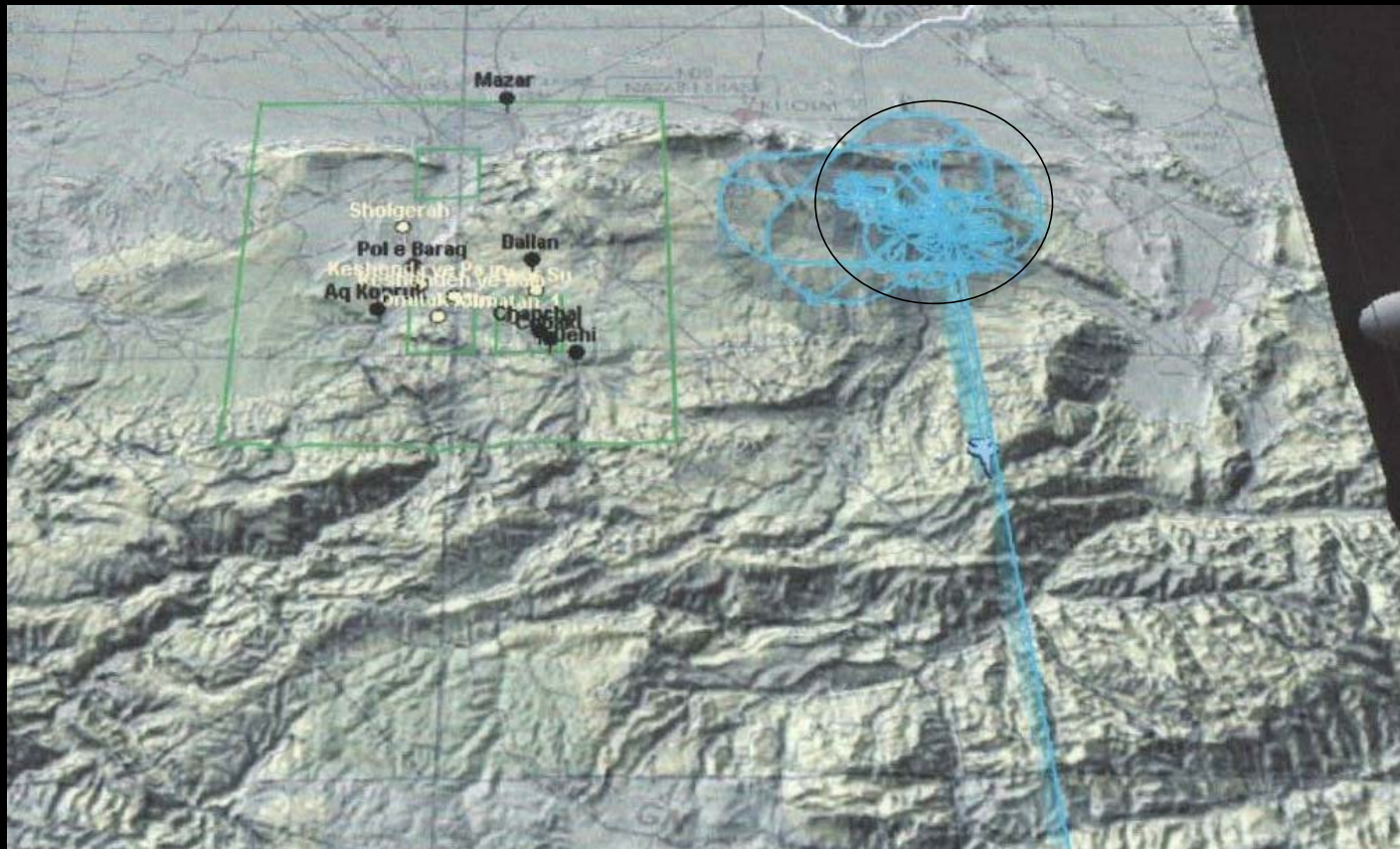




By the end of the day, the coalition forces are through the gap, and the Taliban are fleeing the city.



# 091630Z Air Operations

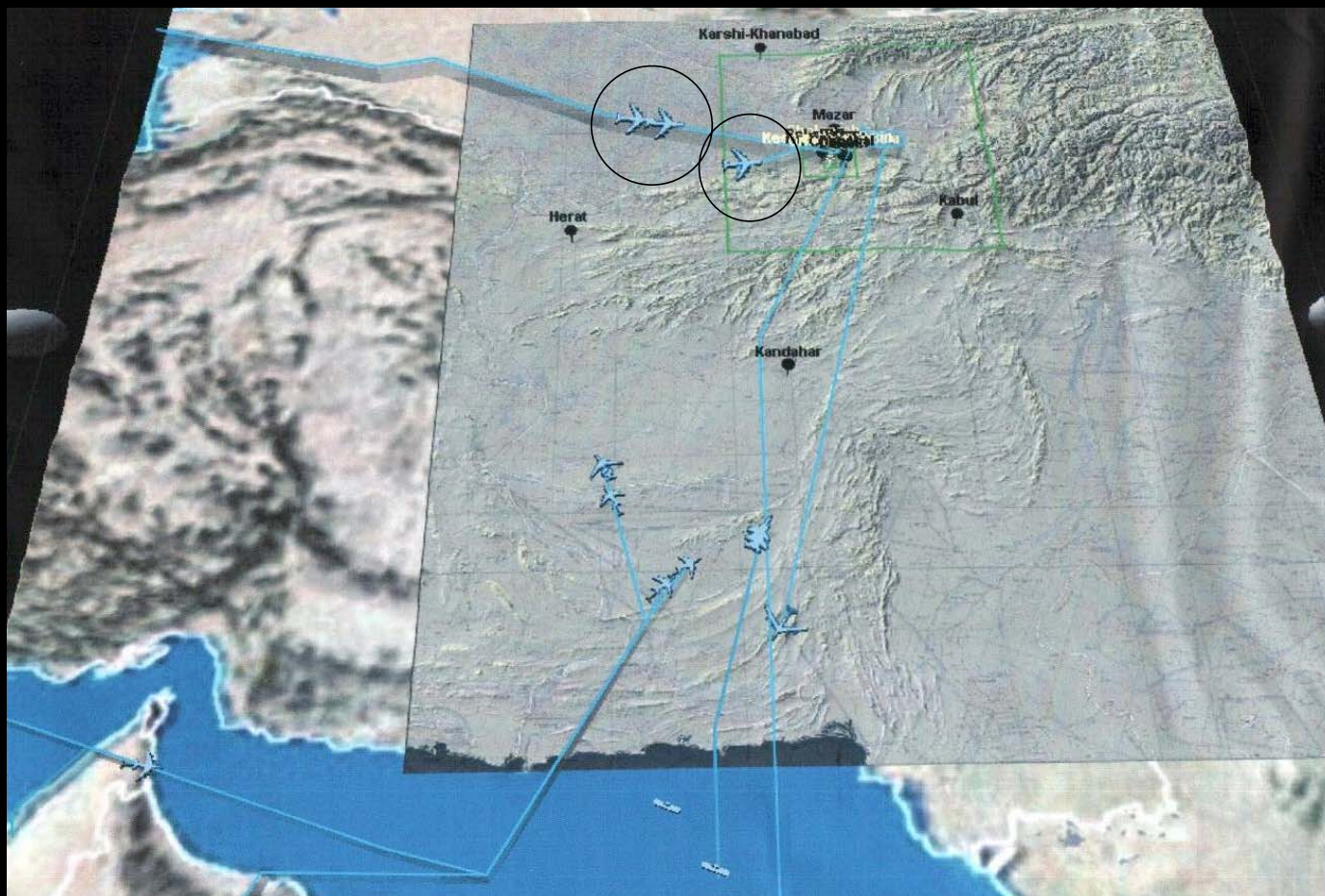




But the air operations don't stop; they're available 24/7. Despite the reduction in air requests from the Mazar area, the air-to-ground battle shifts to the east as Taliban forces flee to and congregate near Konduz.



# 092220Z Air Operations



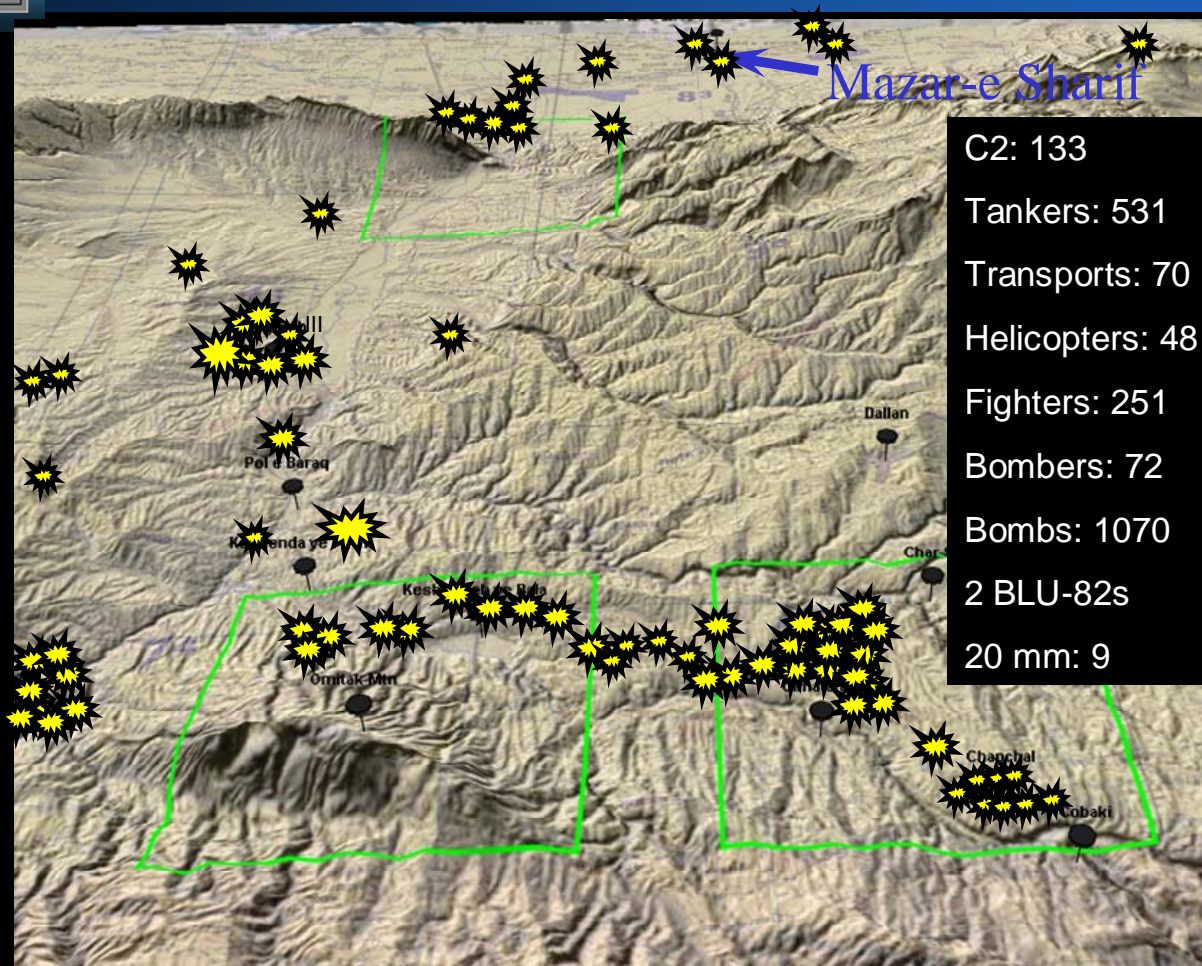


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It's 2220Z. In addition to aircraft maintaining command and control and tanker, bomber, and fighter support, two C-17s head into the Mazar area to provide humanitarian aid, and one MC130H drops supplies to ODA595. In particular, they've just received much needed batteries to sustain them in the next day's fight in Mazar.



## Air Strikes: 20 October–9 November 2001



C2: 133

Tankers: 531

Transports: 70

Helicopters: 48

Fighters: 251

Bombers: 72

Bombs: 1070

2 BLU-82s

20 mm: 9



The battle for Mazar-e-Sharif took approximately 3 weeks from insertion to fall. It was executed by three Special Forces Operational Detachments—two ODAs and an ODC—and attached Air Force special operators. The Northern Alliance provided the ground maneuver force. All the fire support was delivered by air.

Here is a roll up of the air support. Note the use of the 20 mm gun runs to support ground forces in danger of being overrun.



# Transformational Aspects



- Combined and Joint Interdependence
  - Northern Alliance (NA) forces, 4 separate ethnic factions / goals
  - OGA, air-power and logistics resupply
- Intelligence
  - Ability to plug into local underground / intel net with extensive HUMINT sources across entire UWOA, including within the Taliban forces
  - Communications intercepts, psychological and fire-support nets
  - Allowed timely and accurate targeting of time sensitive / high-value targets to be struck by NA and CAS
  - Inter-agency intel shared at source / pushed to the field
- Fire & Maneuver
  - Synchronize 19th-century NA maneuver elements, secure key terrain / OBJs
  - Employ all manner of inter-Service aerial platforms: B-52 / Predator UAV
  - Adjust targeting techniques / procedures, shorten air coordination cycle
  - Apply precision firepower to avoid / minimize collateral damage
- Logistics
  - Local procurement, battlefield recovery and able to “live off the land, like Apaches”
  - Rapid procurement and aerial delivery of SOF specific items
  - Lethal as well as nonlethal aid, humanitarian and medical aid
  - In-flight aerial coordination and refueling





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The ODA Commander discusses the transformational aspects of the battle:

Some *transformational aspects* of our operations in Afghanistan include a combined and joint interdependence down to the survival level. Upon arriving in Afghanistan we had to establish rapport with our counterparts. We had to help them form and unite a Northern Alliance force of four separate ethnic factions. Each of these ethnic factions had their own separate agendas and goals. We would coordinate our efforts and work closely with other government agencies. We would employ air power to secure our tactical gains and our Northern Alliance force to secure those objectives.<sup>26</sup>

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<sup>26</sup> “ODA Commander’s Brief to Association of the U.S. Army,” Winter Symposium, Ft. Lauderdale, Fla., 5 March 2004.



# Transformational Aspects



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“Our ability to establish rapport and plug into this local underground intelligence net would provide extensive human intelligence sources, which could then be exploited in the battlefield, and some of these sources were even from within the Taliban forces we were fighting.”<sup>27</sup>

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<sup>27</sup> Ibid.



# Transformational Aspects



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These three-man elements of Special Forces NCOs were each out there, advising between 500–750 Mujahedeen fighters. They would synchronize our 19th-century force of horse cavalry and light infantry against an armor and mechanized force. We would employ all manner of inter-Service aerial platforms, including a B-52 and Predator UAV. We would do this in hundreds of sorties employing nearly 1,100 munitions to help shape the battlefield.<sup>28</sup>

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<sup>28</sup> Ibid.



# Transformational Aspects



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  - Northern Alliance (NA) forces, 4 separate ethnic factions / goals
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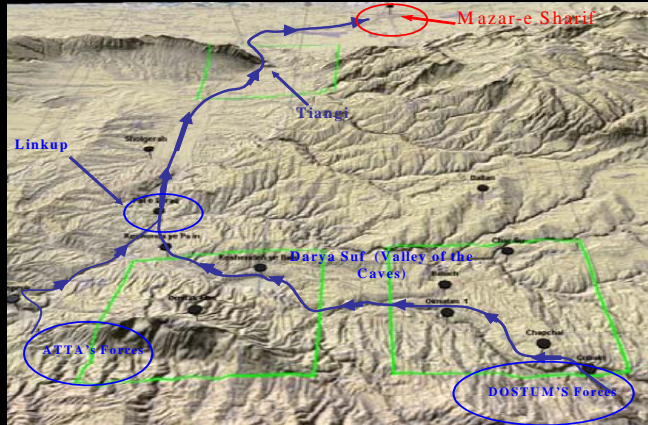
“This is a very austere logistics environment. Everything we got was either locally procured or recovered off the battlefield ....[I]tems that we generally needed would be aerial delivered into Afghanistan.”<sup>29</sup>

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<sup>29</sup> Ibid.



...we rode over 100 miles of rugged terrain...liberating towns and cities



One week after their infiltration, a handful of Americans along with our Northern Alliance Army of now nearly 5,000 Mujahedeen fighters, would capture and enter Mazar-e Sharif, the key hub of the northern provinces. Soon after the capture of that city the entire northern provinces fell. The airfield near Mazar-e Sharif and the land line of communications to the Freedom Bridge connecting Afghanistan to Uzbekistan were opened. Within days, Kabul, Khandahar, and the rest of Afghanistan fell to Coalition control. All of this was done with less than 100 Special Forces personnel on the ground.

An exploitation and pursuit phase quickly ensued.

My detachment was spread over 60 km, and we rode over 100 miles of rugged, mountainous terrain alongside General Dostum, Commanders Atta, Mohaqiq, and our Mujahedeen force. We liberated towns and cities along the way, all across the northern provinces. The detachment was responsible for the destruction of hundreds of Taliban and Al Qaida vehicles, bunkers, and heavy equipment, as well as thousands of enemy soldiers, killed, captured, or surrendered.<sup>30</sup>

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<sup>30</sup> Ibid.



**IV. THE BATTLE FOR MAZAR-E SHARIF:  
DEMONSTRATING A METHODOLOGY TO ASSESS NEW TECHNOLOGIES**



# Hypothesizing New Capabilities



*We've talked about what was, that is, the historical aspects of Mazar-e Sharif. Now let's discuss what could be...*



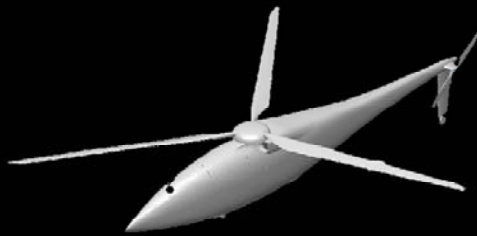
We've discussed what was, that is, the historical aspects of Mazar. Now let's discuss what could be.



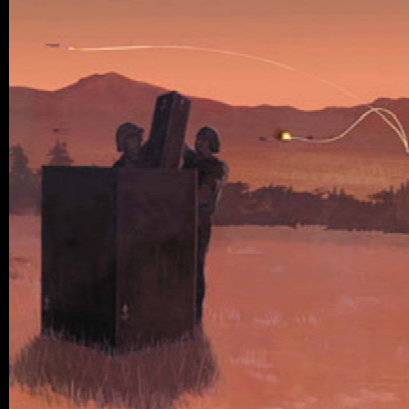
# Hypothesizing New Capabilities



*Emerging DARPA unmanned technologies could affect future operations at the joint, tactical level.*



A160 Vertical Takeoff  
and Landing Unmanned  
Aerial Vehicle



NetFires



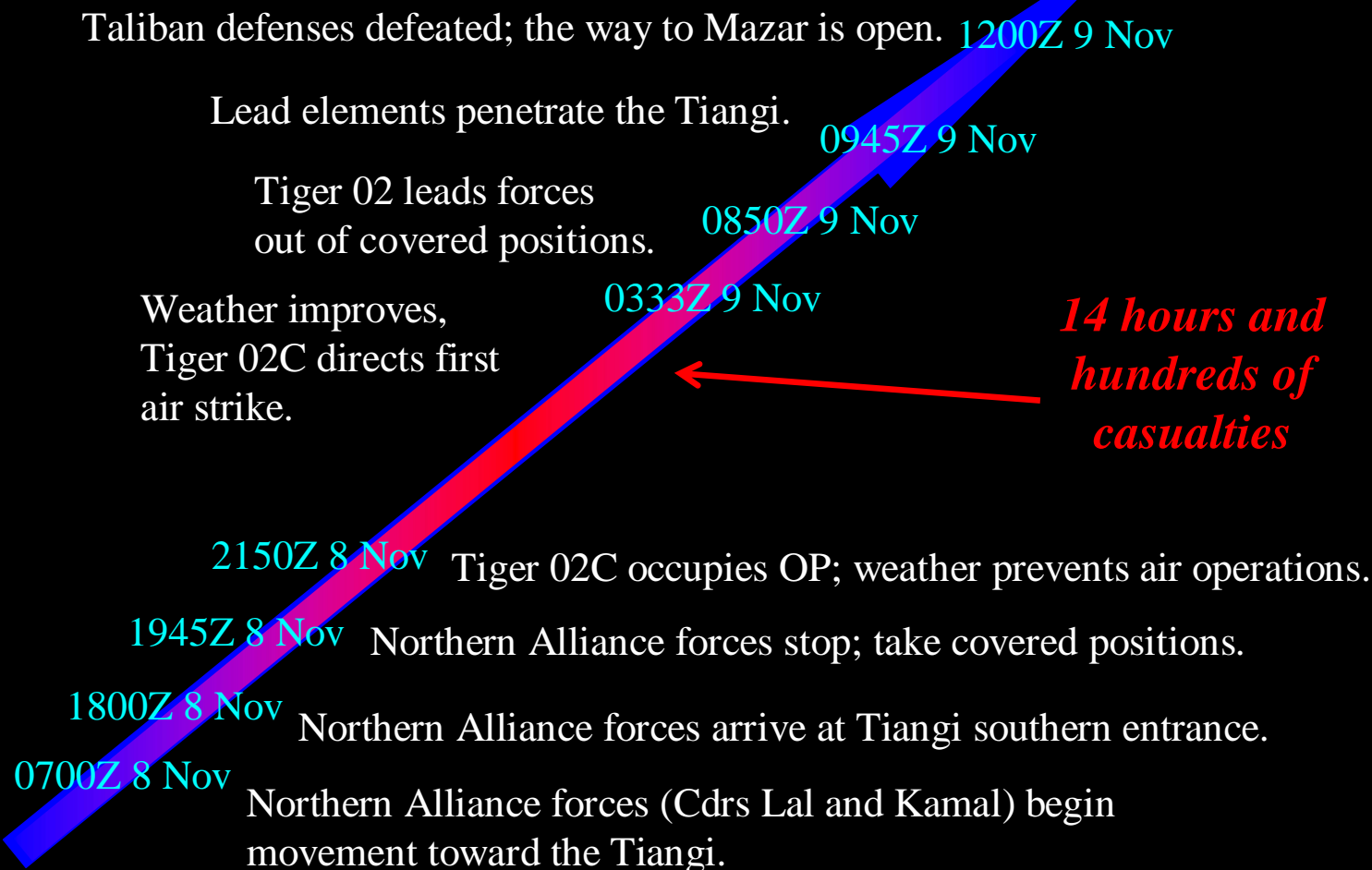
Future Combat System  
(FCS) Unmanned  
Ground Combat Vehicle  
(UGCV)

The purpose of this demonstration is to show a methodology, not promote certain systems or present an analysis. In this case we've selected only three DARPA candidate systems. They could be any three, but for this demonstration we selected:

- The A160 Hummingbird, a VTOL (vertical takeoff and landing) UAV (unmanned aerial vehicle) projected to have endurance greater than 24 hours, adverse-weather capable, and equipped with targeting sensors and a communications relay package (CRP).
- NetFires, and in particular the Loitering Attack Munition, or LAM, with its capability to loiter and then attack at the time and place of the commander's choosing.
- Third is the Future Combat System (FCS) Unmanned Ground Combat Vehicle to lead the way—the dull but dangerous work of walking point for the ground forces.



## Time Line of 8/9 November Events

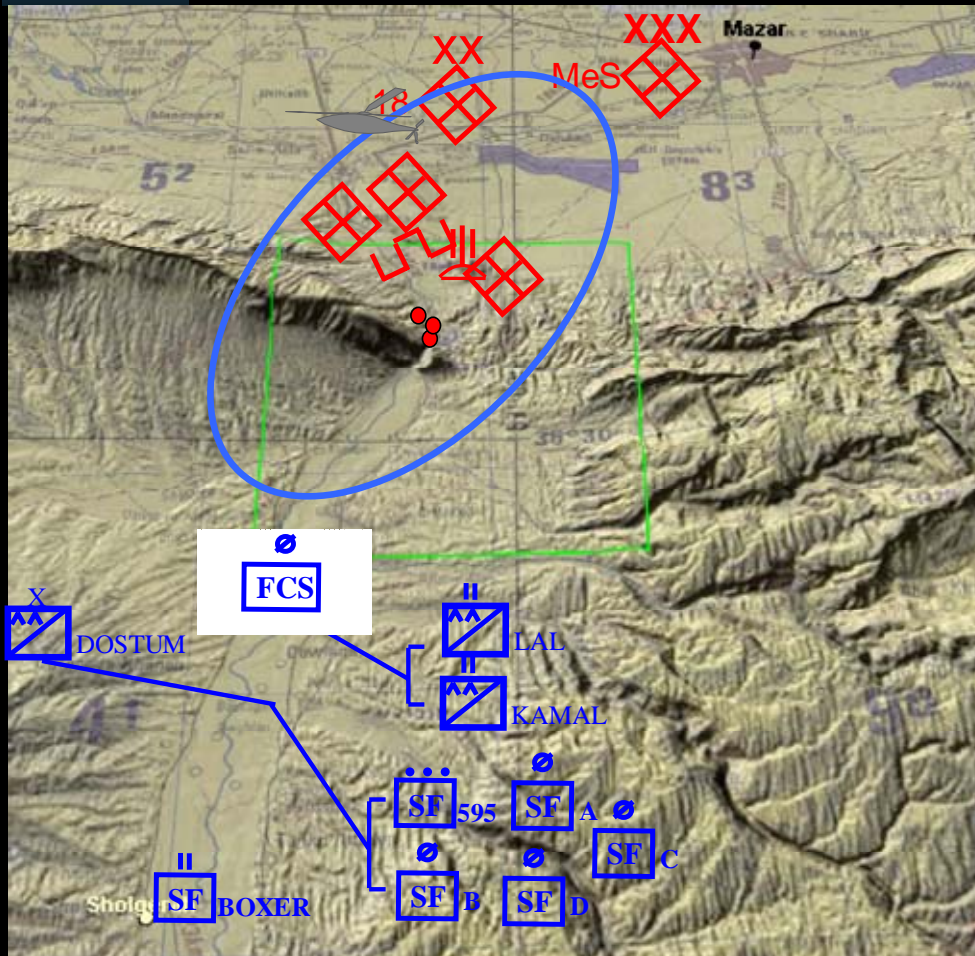




This is the time line for 8–9 November. That is, the time the Northern Alliance began its movement on the 8th up the Shulgareh to where the Taliban defenses were effective—at the Tiangi. Fourteen hours and hundreds of lives later, the Northern Alliance broke through the pass.



# Creating a New Time Line Based on Technology Insertion



0700Z 8 Nov:  
Northern Alliance  
forces begin  
movement toward  
the Tiangi.

An A160 loiters  
over the Taliban  
defensive area.

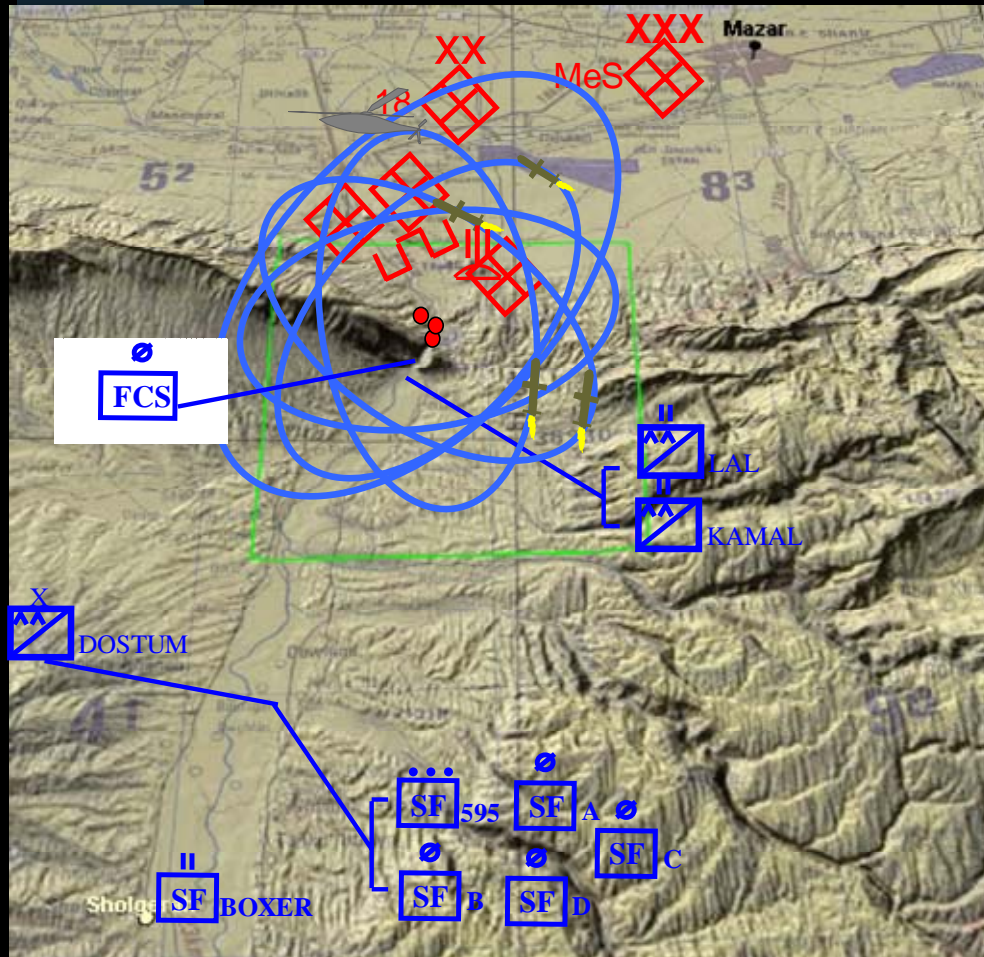
4 FCS UGCV lead  
the advance.



What if—what if we had the three candidate systems? That is, place the A160 north of the Tiangi for reconnaissance, target acquisition, and communications relay; the Unmanned Ground Combat Vehicle in the lead to detonate those mines and work with the A160 to spot the ZSU-23-2s and Taliban defenses; and the LAM to destroy the Taliban. Let's look at creating a new time line and use time and lives saved as measures of effectiveness.



## UGCV on Point, Firepower Available Above



1801Z 8 Nov:  
Northern Alliance  
forces (Lal, Kamal)  
and FCS UGCV on  
point arrive at the  
southern edge of the  
Tiangi.

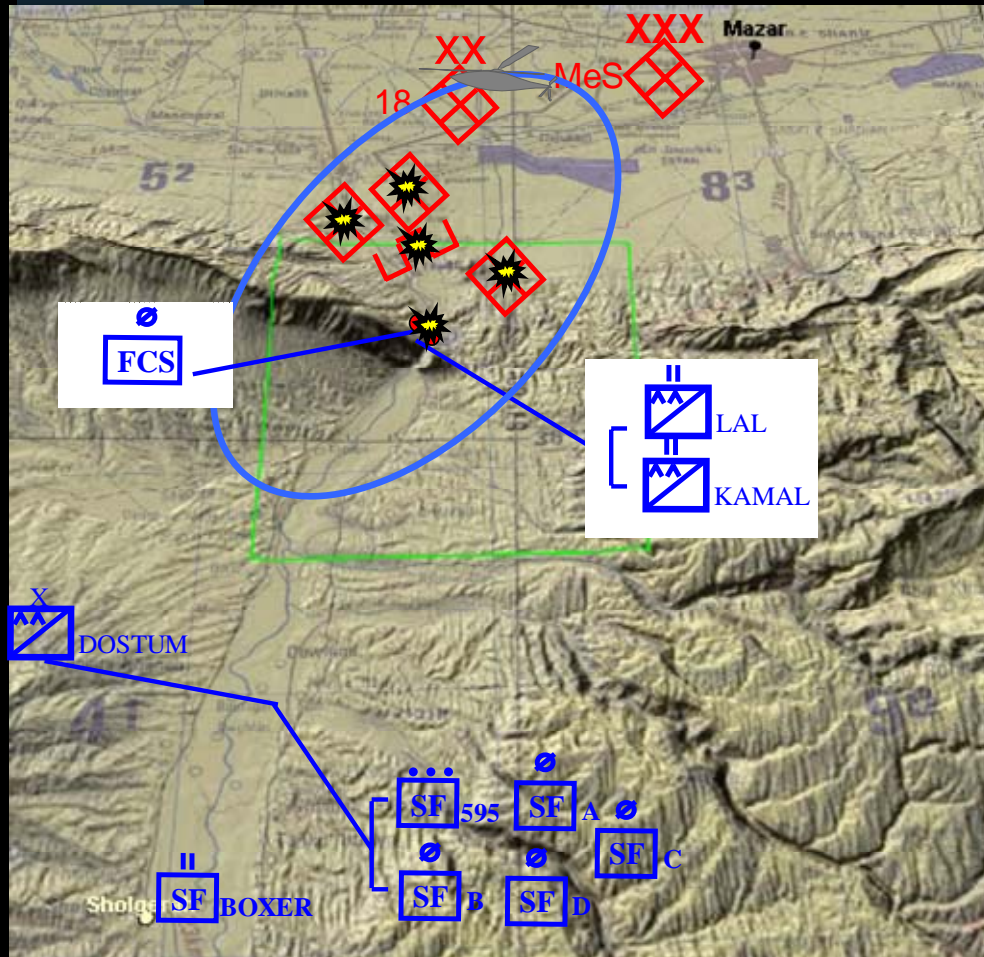
4 LAMs now loiter  
over the Taliban, controlled  
by on-ground SOF  
commands relayed  
through the A160.



At 1801 Zulu on the 8th, the Northern Alliance, with the Unmanned Ground Combat Vehicle in the lead, approach the Tiangi. The A160 maintains contact with the Taliban forces and locates the forward elements of the Taliban defenses. Four LAMs are launched and loiter over the area under the control of the ground Special Operations Forces. Non-line-of-sight control is provided through the communications relay package onboard the A160.



# Clearing the Way



1820Z 8 Nov:

NetFires strike  
southernmost Taliban  
defensive positions.

FCS UGCVs neutralize  
mines in the Tiangi.

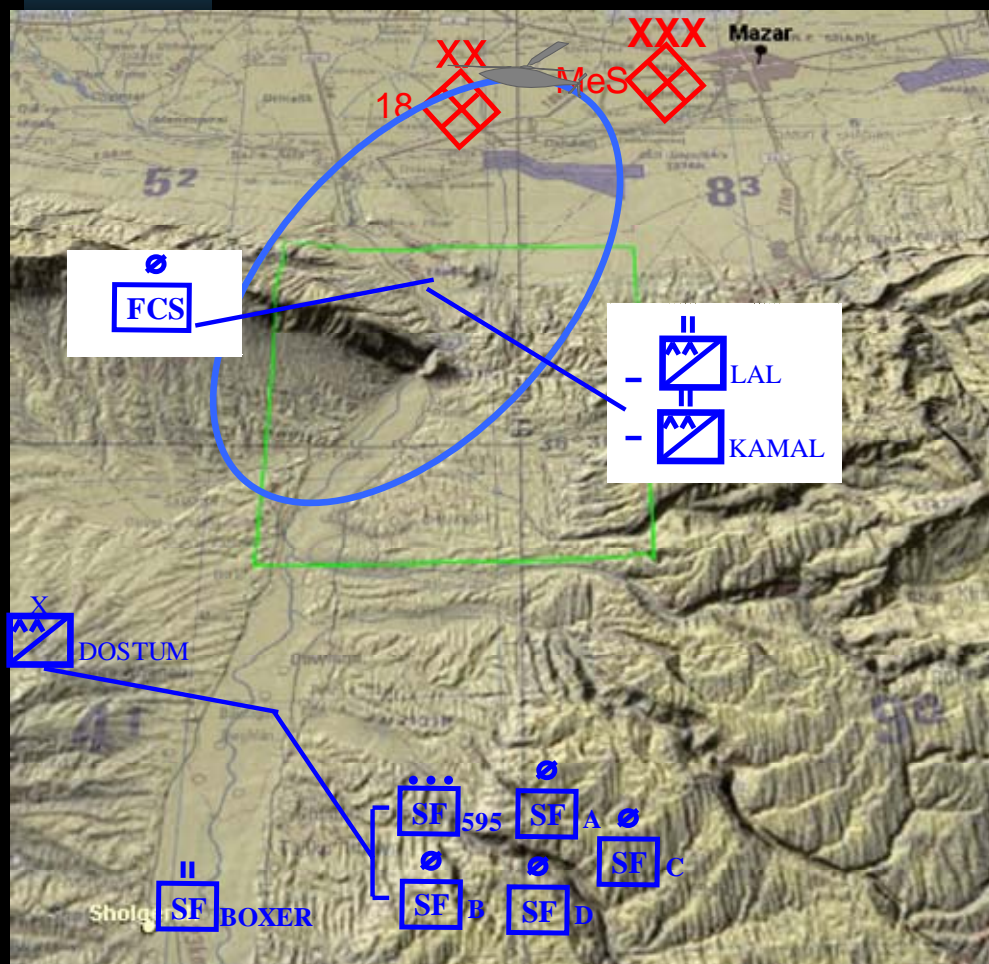
CDRs Lal and Kamal  
continue their advance.



It's 1820 Zulu on the 8th. NetFires strike the Taliban positions, including the ZSU 23-2 used in direct-fire mode down the Tiangi. The Unmanned Ground Combat Vehicles locate and detonate the mines in the pass. Commanders Lal and Kamal continue their advance through the Tiangi.



# The Tiangi is Secure



1840Z 8 Nov:

Lead elements of the FCS UGCV and Northern Alliance emerge from the northern end of the Tiangi.

A160 continues to provide situational awareness.

Remaining Taliban are unable to counterattack due to weather and darkness.



At 1840 Zulu on 8 November, lead elements of the Unmanned Ground Combat Vehicle and Northern Alliance emerge from the northern end of the Tiangi. The A160 continues to provide coverage on Taliban movements and positioning. The remaining Taliban flee—they are unable to counterattack due to weather and darkness.



## Potential Savings



*Potentially  
15 hours . . .*

*and  
hundreds  
of lives  
saved!*

1845Z 8 Nov Coalition forces emerge from the Tiangi, unopposed

1820Z 8 Nov FCS UGCV clear mines; NetFires destroys Taliban forward defenses

1800Z 8 Nov Northern Alliance forces arrive at Tiangi southern entrance

0700Z 8 Nov Northern Alliance forces (Cdrs Lal and Kamal) begin movement toward the Tiangi.

A revised time line reflects potentially 15 hours and hundreds of lives saved by introducing several candidate systems to the battlefield.<sup>31</sup>

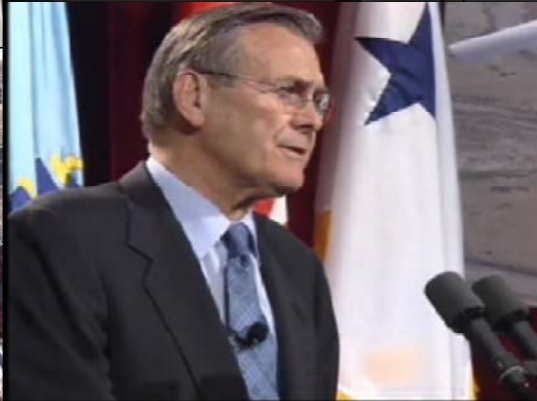
This same approach could be applied to other systems as well. The point of the demonstration is to show the power of an experimental methodology and not promote specific systems.

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<sup>31</sup> Again, the purpose was to demonstrate a methodology, not undertake an analysis. The “potentially 15 hours and hundreds of lives saved” are illustrative of the process, but the numbers were not developed through rigorous analysis.



# Jointness Wins! Training is Critical!



Secretary of Defense Rumsfeld summarizes the winning formula and our training challenge:

Now what won the battle for Mazar and set in the motion the Taliban's fall from power, was a combination of ingenuity of the Special Forces; the most advanced, precision-guided munitions in the U.S. arsenal, delivered by U.S. Navy, Air Force and Marine crews; and the courage of the Afghan fighters, some with one leg. That day on the plains of Afghanistan, the 19th century met the 21st century, and they defeated a dangerous and determined adversary, a remarkable achievement.

The ability of forces to communicate and operate seamlessly on the battlefield will be critical to our success. In Afghanistan, we saw composite teams of U.S. Special Forces on the ground, working with Navy, Air Force, and Marine pilots in the sky, to identify targets, communicate targeting information, and coordinate the timing of strikes, with devastating consequences for the enemy. The lesson of this war is that effectiveness in combat will depend heavily on "jointness," how well the different branches of the military can communicate and coordinate their efforts on the battlefield. And achieving jointness in wartime requires building that jointness in peacetime. We need to train like we fight and fight like we train, and too often, we don't.<sup>32</sup>

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<sup>32</sup> Secretary of Defense Donald Rumsfeld, "Flexibility, Adaptability at the Heart of the Military Transformation," Speech at National Defense University, Ft. McNair, Washington, D.C., 31 January 2002.

*Learning from the First Victories of the  
21st Century: Mazar-e Sharif  
—A Preview—*



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14. ABSTRACT At the request of General Franks, Combatant Commander, U.S. Central Command (CENTCOM), a DARPA/IDA team reconstructed "salient aspects of a major Afghanistan battle (Mazar-e Sharif) in virtual simulation to support historical analysis as well as future research and development." This document provides a preview of that work. Specifically, it: <ul style="list-style-type: none"> <li>• Contrasts state of the art simulation 10 years ago with today's simulation capabilities;</li> <li>• Provides an overview of the Campaign for Mazar-e Sharif and focuses on the battle at Tiangi as an exemplar of one of the many significant engagements; and</li> <li>• Uses the "Tiangi" re-creation as basis for comparing the contributions of various capabilities. The purpose is to demonstrate a method by which capabilities, that is, systems or procedures, can be measured against a base case.</li> </ul>					
15. SUBJECT TERMS Battle Site Survey, Battle Reconstruction, Enduring Freedom Reconstruction, Virtual Simulation Applications, Mazar-e Sharif					
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## **PREFACE**

This publication was prepared as a preview to the Enduring Freedom Reconstruction products and capabilities.

The objective of the Enduring Freedom Reconstruction task, in support of the Defense Advanced Research Project Agency at the request of General Tommy Franks, CENTCOM Commander, was to “reconstruct salient aspects of a major Afghanistan Campaign (e.g., Mazar-e Sharif) in virtual simulations to support historical analysis as well as further research and development.”

The purpose of the publication and associated media is to (1) contrast state-of-the-art simulation 10 years ago with today’s capabilities, (2) provide an overview of the campaign for Mazar-e Sharif and focus on the battle at Tiangi (pass), and (3) demonstrate the use of the “Tiangi” re-creation as basis for comparing the contributions of various future systems.



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**I. INTRODUCTION: LEARNING FROM THE FIRST VICTORIES OF THE 21ST CENTURY:  
MAZAR-E SHARIF—A PREVIEW**

*Learning from the First Victories of the  
21st Century: Mazar-e Sharif  
—A Preview—*





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## **INTRODUCTION: LEARNING FROM THE FIRST VICTORIES OF THE 21ST CENTURY: MAZAR-E SHARIF— A PREVIEW**

At the request of General Tommy Franks, Combatant Commander, U.S. Central Command (CENTCOM), a Defense Advanced Research Projects Agency/Institute for Defense Analyses (DARPA/IDA) team reconstructed “salient aspects of a major Afghanistan Campaign (e.g., Mazar-e Sharif) in virtual simulation to support historical analysis as well as further research and development.”<sup>1</sup> This presentation, “Learning Lessons from the First Victories of the 21st Century: Mazar-e Sharif—A Preview,” provides a glimpse of that work. Specifically, it:

- Contrasts state-of-the-art simulation 10 years ago (e.g., '73 Easting) with today's simulation capabilities—Operation Enduring Freedom Battle Reconstruction;
- Provides an overview of the Campaign for Mazar-e Sharif and focuses on the battle at the Tiangi<sup>2</sup> as an exemplar of one of the many significant engagements; and
- Uses the “Tiangi” re-creation as basis for comparing the contributions of various capabilities. The purpose is to demonstrate a method by which capabilities, that is, systems or procedures, can be measured against a base case.<sup>3</sup>

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<sup>1</sup> Project Assignment Number DA-3-2150, “Enduring Freedom Reconstruction.”

<sup>2</sup> Tiangi means “pass.”

<sup>3</sup> In this case we selected only three DARPA technologies and in a quick, back-of-the-envelope review, looked at their potential contributions to a future “Tiangi” battlefield. In this scenario the technologies could be different. The point is, we are offering a methodology.



## **II. THE EVOLUTION OF SIMULATION CAPABILITIES**



# '73 Easting





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CPT HR McMasters: “During the battle, there was no time to feel any emotion; there was no time to feel any fear. I found myself as I watched this battle...I could feel the adrenaline flowing, [laugh] I could feel my palms start to sweat.”<sup>4</sup>

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<sup>4</sup> CPT H.R. McMasters, USA, “The Reconstruction of the Battle of ’73 Easting—A DARPA Project Report,” 25 February 1992.



# 11 September 2001





Our world suddenly changed on 11 September 2001 with terrorist attacks on the World Trade Center and Pentagon. We took the fight to Afghanistan.



# A Decade After the '73 Easting Simulation



As in '73 Easting for the Gulf War, simulation was applied to one of the first victories of the 21st century, Mazar-e Sharif.



## The Evolution of Simulation from '73 Easting to Afghanistan



'73 Easting



Afghanistan



What you just saw represents some of the many advances in simulation that have occurred in the last decade. The '73 Easting reconstruction required a van full of large computer systems that worked primarily at the platform level, such as tanks and Bradleys, and were not able to represent humans as articulated models. The Mazar reconstruction was completed by a federation of systems, all running on PCs, to portray weather; highly articulated animate figures; dynamic, high-resolution terrain; and novel systems. These federated systems worked together to create an immersive environment that clearly represents conditions and actions as they occurred throughout the battle space.



### **III. THE BATTLE FOR MAZAR-E SHARIF—A PREVIEW**

## *The Battle for Mazar-e Sharif—A Preview*

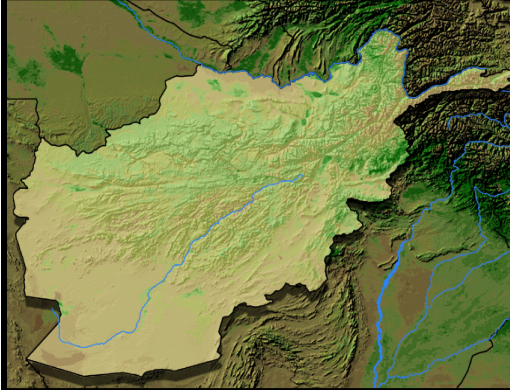




What you are about to see is an application of simulation technologies to provide a faithful reconstruction of the first battle in the Afghanistan war—it was a joint battle fought at the tactical level. At the end you will see a method for assessing the contributions of various technologies by using simulation.



## Mazar-e Sharif...a story of initiative, adaptability, and transformation





After 9/11 the United States and coalition forces pursued an enemy that found sanctuary in Afghanistan, a landlocked country that was thousands of miles from U.S. basing. The story of Mazar-e Sharif, the gateway to Afghanistan, is about the heroics of U.S. forces on the ground and in the air, precision munitions, and a courageous 19th-century indigenous coalition partner who defeated a seemingly undefeatable foe. It's a story of initiative, adaptability, and transformation.



# USCENTCOM Commander



“Almost ten years ago, . . . DARPA and IDA reconstructed the Battle of 73 Easting from the Gulf War. Much was gained from that effort to capture and recreate our actions in a virtual simulation effort. Today we are engaged in a new network-centric war. It needs to be recorded and broken down for further research, development, and historical analysis.”

—Letter from GEN Tommy R. Franks, Commander, USCENTCOM, to Dr. Tony Tether, Director, DARPA



“Mazar-e Sharif was...important... because it opened the land bridge to Central Asia...and it provided the first glimmer of hope...to a great many people in Afghanistan.”





General Franks, CENTCOM commander, a student of simulations and director of the Louisiana Maneuvers, didn't want lose the opportunity to capture this rare confluence of strategies, human adaptability, and application of technologies, both old and new, as he requested and later approved Mazar-e Sharif as the "right scenario" for DARPA's battlefield reconstruction: "Mazar-e Sharif was an important fight for us because it was the fight that opened the land bridge to Central Asia to the north and provided the first glimmer of hope—not only to the Northern Alliance, but to a great many people in Afghanistan."<sup>5</sup>

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<sup>5</sup> General Tommy Franks, USA, Interview by Bill Knarr, IDA, 3 February 2003, at CENTCOM, MacDill Air Force Base, Florida.



# Extended Area of Operations





But the challenges were immense. First, let's look at the air operations. Logistics and humanitarian assistance arrived from Germany, bombers from the States and Diego Garcia, fighters from Southwest Asia and the Arabian Gulf, and tankers prepositioned en route to support those operations.



# Area of Operations

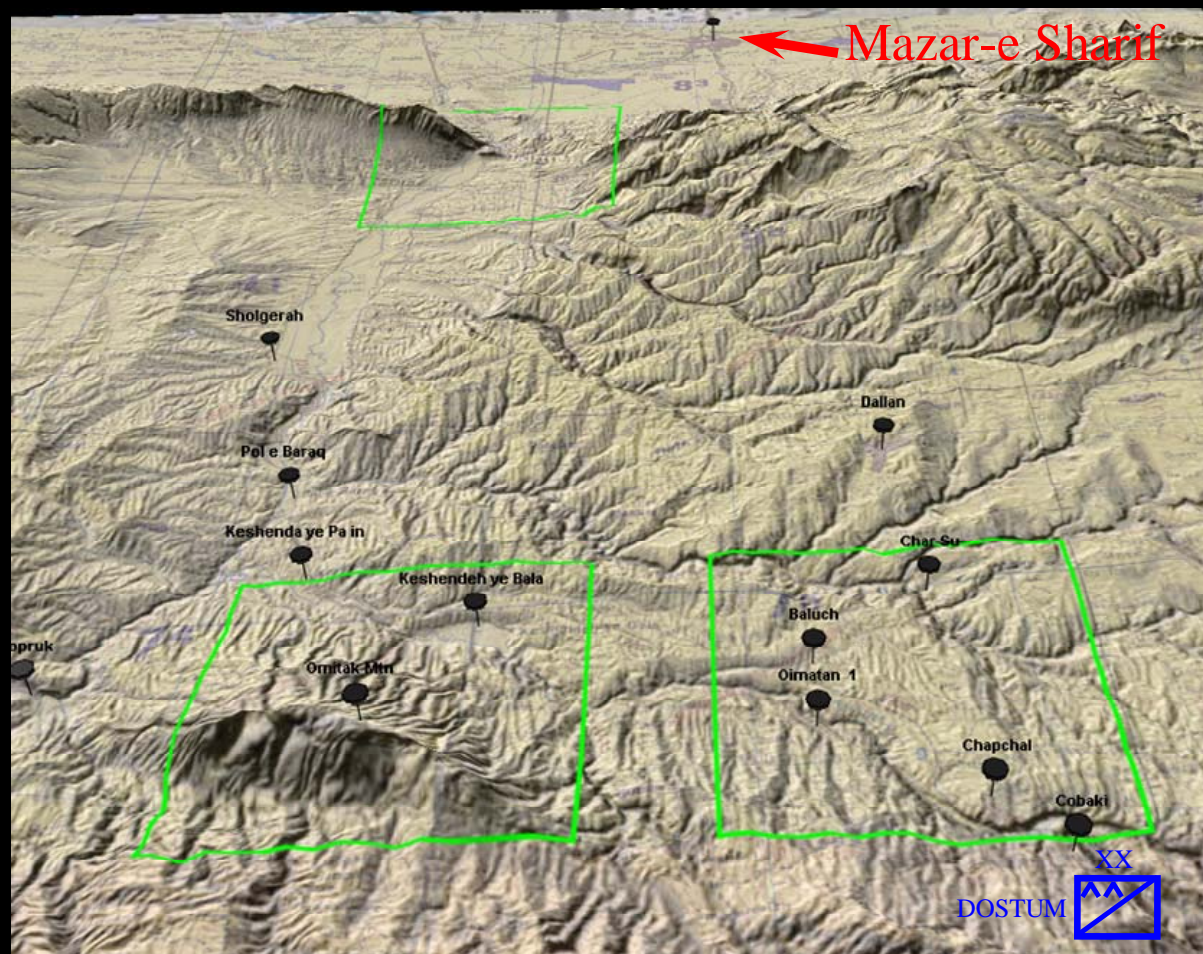




Let's look at the ground force area of operations.



# Tiger02—Operational Area

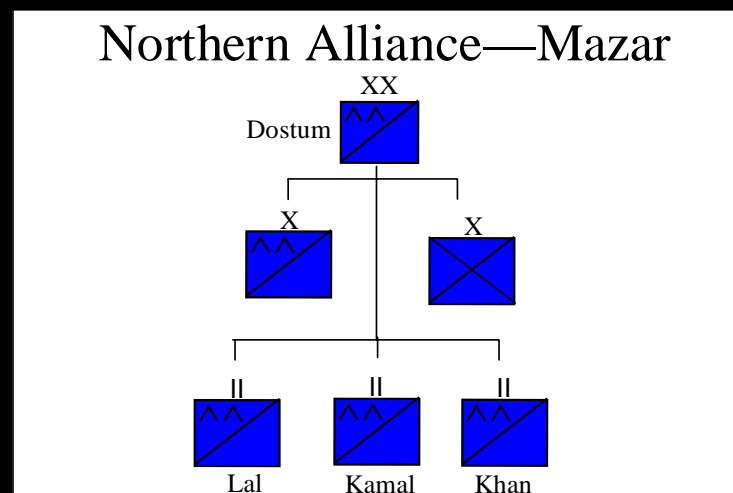
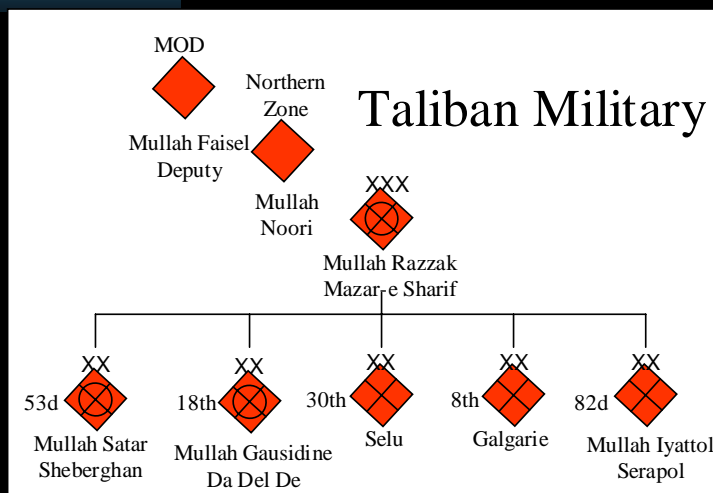




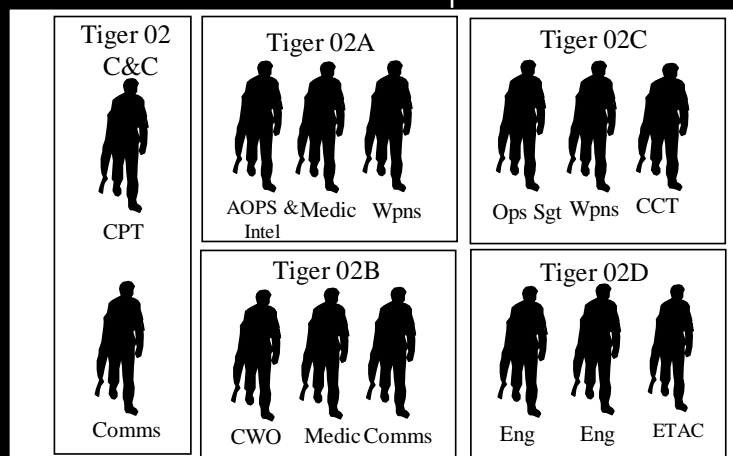
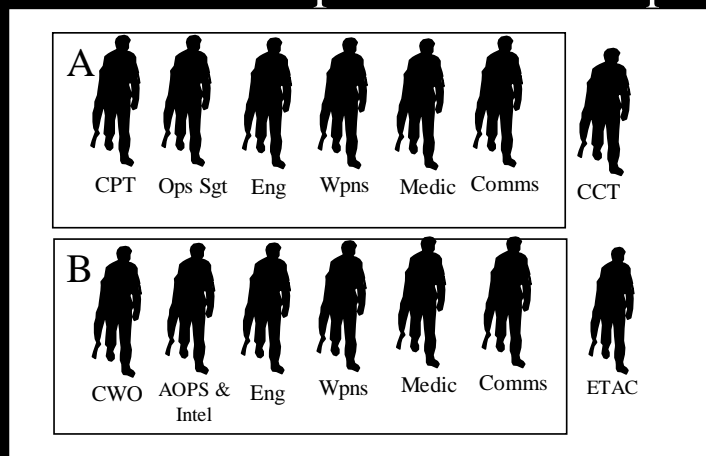
Although General Dostum was influential in several of the Northern provinces, his fight primarily took place in a 25 by 50 mile area, with Mazar-e Sharif to the north and his initial major engagements to the southeast in an area called the Darya Suf, or the Valley of the Caves.



# Who's Who



## Special Forces Operational Detachment A+





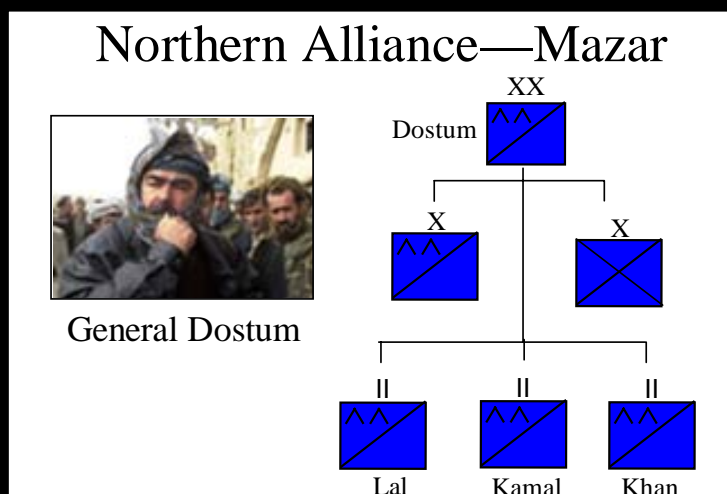
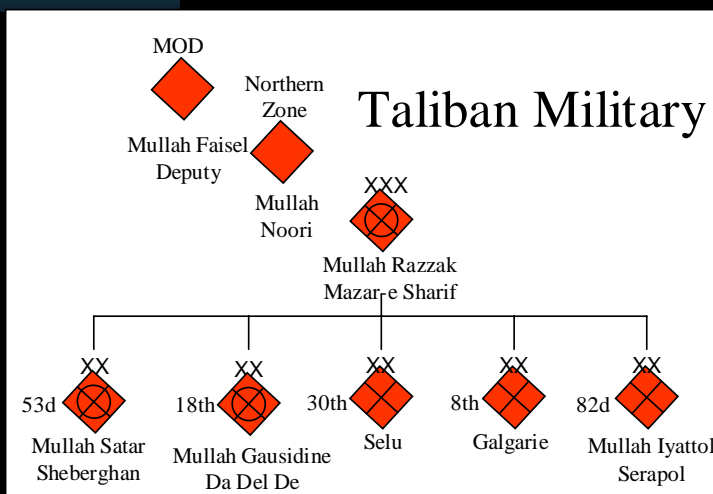
Let's take a look at the ground forces. The Taliban, configured with a corps in Mazar commanded by Mullah Razzak, consisted of approximately 10,000 soldiers, much smaller than a U.S. corps.<sup>6</sup> Northern Alliance forces in the Mazar area were commanded by General Dostum. He had approximately 2,500 to 3,000 horsemen and foot soldiers. ODA 595 consisted of 12 special forces soldiers. They included two weapons, engineers, medics, and communication experts. Doctrinally, this provided the commander the resources to break the detachment into an A and B Team. Upon receipt of a combat controller and enlisted terminal attack controller from the Air Force, ODA 595 Commander had the resources to further break his detachment into a command-and-control element and four cells. He dispersed these cells throughout the battlefield to support Northern Alliance subcommanders and General Dostum's strategy.

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<sup>6</sup> General Habib Bullah, interviewed at Tiangi and Mazar-e Sharif, 10 December 2002. General Bullah, former Taliban, provided the Taliban Order of Battle for this presentation. All interviews cited in this publication were conducted as part of the Operation Enduring Freedom Reconstruction Project.



# Who's Who



## Special Forces Operational Detachment A



ODA 595 Commander  
and Callsign Tiger 02



ODA 595 Ops Sgt and Cell  
Leader Tiger 02C



Weapons Sergeant  
Tiger 02C



Eyewitness accounts of the battle will be provided by GEN Dostum; the ODA 595 Commander, or call sign Tiger 02; the ODA 595 Operations Sergeant, and in this case Cell Leader for Tiger 02C; and the Weapons Sergeant for Tiger 02C.

Before we recount the battle, the ODA commander discusses his unit, mission, intent, and desired end state.



# ODA 595 (+)



## Composition

- **12 x SF + 2 x USAF** (1xCCT and 1xETAC)
- **Highly trained**—unconventional warfare
- **Regionally Oriented**—in Arab/Uzbek cultures
- **Language Capable**—basic Arabic, Russian, and Uzbek
- **Cross-trained**—tactics, shoot, move, communicate, and survive
  - 9 / 12 qualified SOF snipers, rocket and mortar employment / use, employ CAS
  - medical (1st responder),
- **Extremely Versatile / Flexible / Adaptable**—cellular training focus
  - empowered and trusted
- **Experienced Unit / Mature Soldiers**
  - cohesive team / unit for 24 months
  - 5 veterans from Gulf War, Somalia, and Haiti
  - AVG age 32, AVG 8 years of active service
  - 11 / 12 married, 9 / 11 with 2+ children

## Mission

ODA-595 conducts unconventional warfare (UW) in support of General Abdul Rashid Dostum in order to render UW operational area unsafe for Taliban and Terrorist organizations.

## Intent

- Conduct Unconventional Warfare (UW)
- Provide Close Air Support (CAS)
- Provide Humanitarian Assistance (HA)

## Endstate

- Render area unsafe for Taliban and Terrorist organizations (AQ and IMU)
- Capture an airfield vicinity Mazar-e Sharif
- Secure the land lines of communication to Heyraton, Afghanistan and the Freedom Bridge to Uzbekistan
- All Americans and ODA members come home





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“I had the privilege of serving as the Commander of Operational Detachment Alpha-595 based at Ft. Campbell as part of the 5th Special Forces Group. This detachment was chosen to be one of the first two Special Forces teams to be deployed into Afghanistan. My detachment would have the honor of ‘leading the first cavalry charges of the 21st century.’”<sup>7</sup>

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<sup>7</sup> “ODA Commander’s Brief to Association of the U.S. Army,” Winter Symposium, Ft. Lauderdale, Fla., 5 March 2004.



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Our Special Forces team consisted of 12 soldiers. One week after infiltration we would be augmented with two Air Force attachments.

Our training and mission focus was on conducting Unconventional Warfare. The team was regionally oriented. We had completed several rotations to the Middle East as well as Central Asia, and these experiences would pay great dividends in leading to our selection and our mission success in conducting operations in Afghanistan.

We emphasized heavy cross-training with all members of the detachment, focusing on the basics and Advanced Special Operations skills.

An ODA is organized, manned, and equipped to operate normally in a split-man team, in two six-man elements. We frequently trained in three- to four-man elements.<sup>8</sup>

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<sup>8</sup> Ibid.



# ODA 595 (+)



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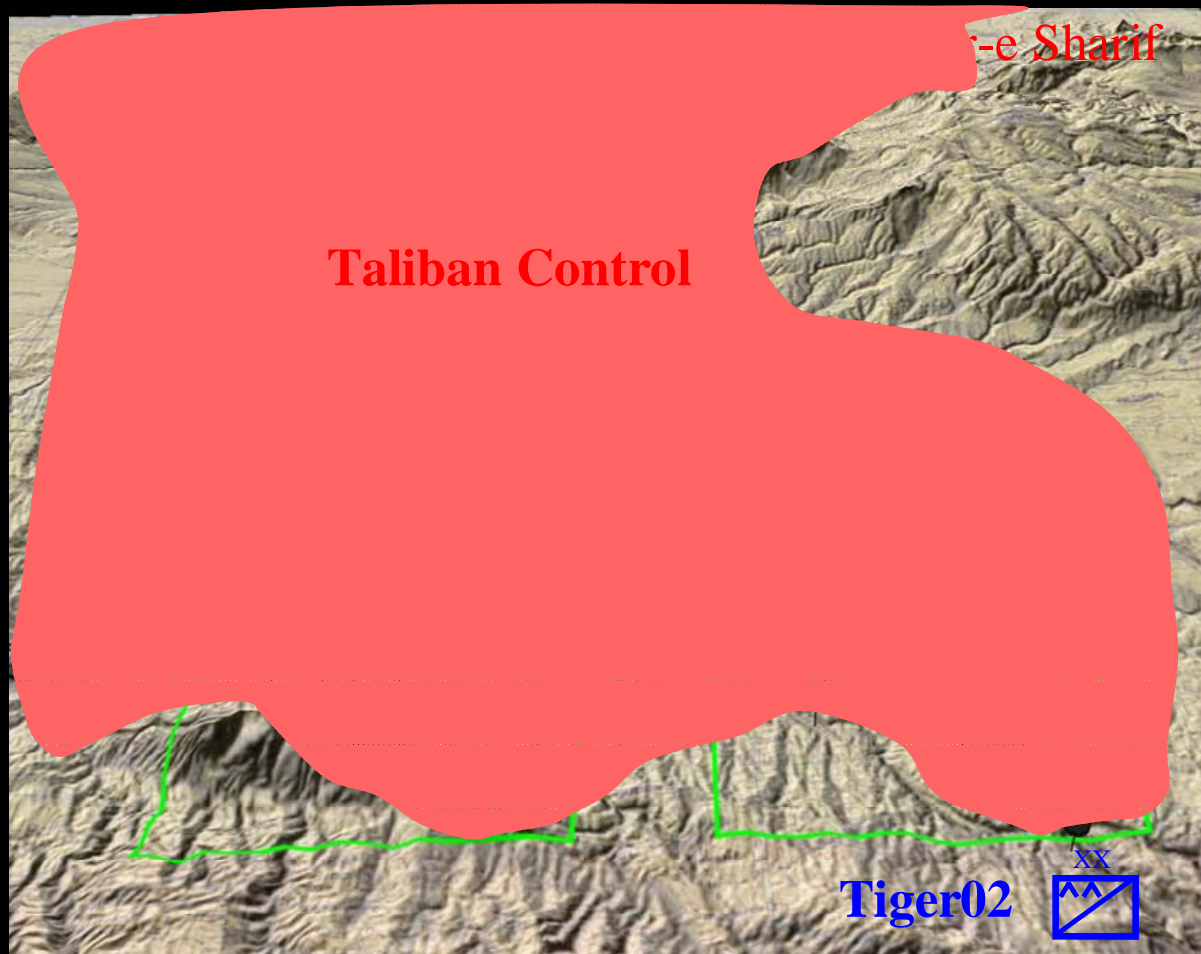
“We did this by empowering and trusting our NCOs to get out there and operate in a very vague and fluid situation, from basically a Commander’s intent, mission statement, and endstate. On 15 OCT 2001 the team was notified that we had 48 hours until infiltration into Northern Afghanistan.”<sup>9</sup>

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<sup>9</sup> Ibid.



# Tiger02—Operational Area



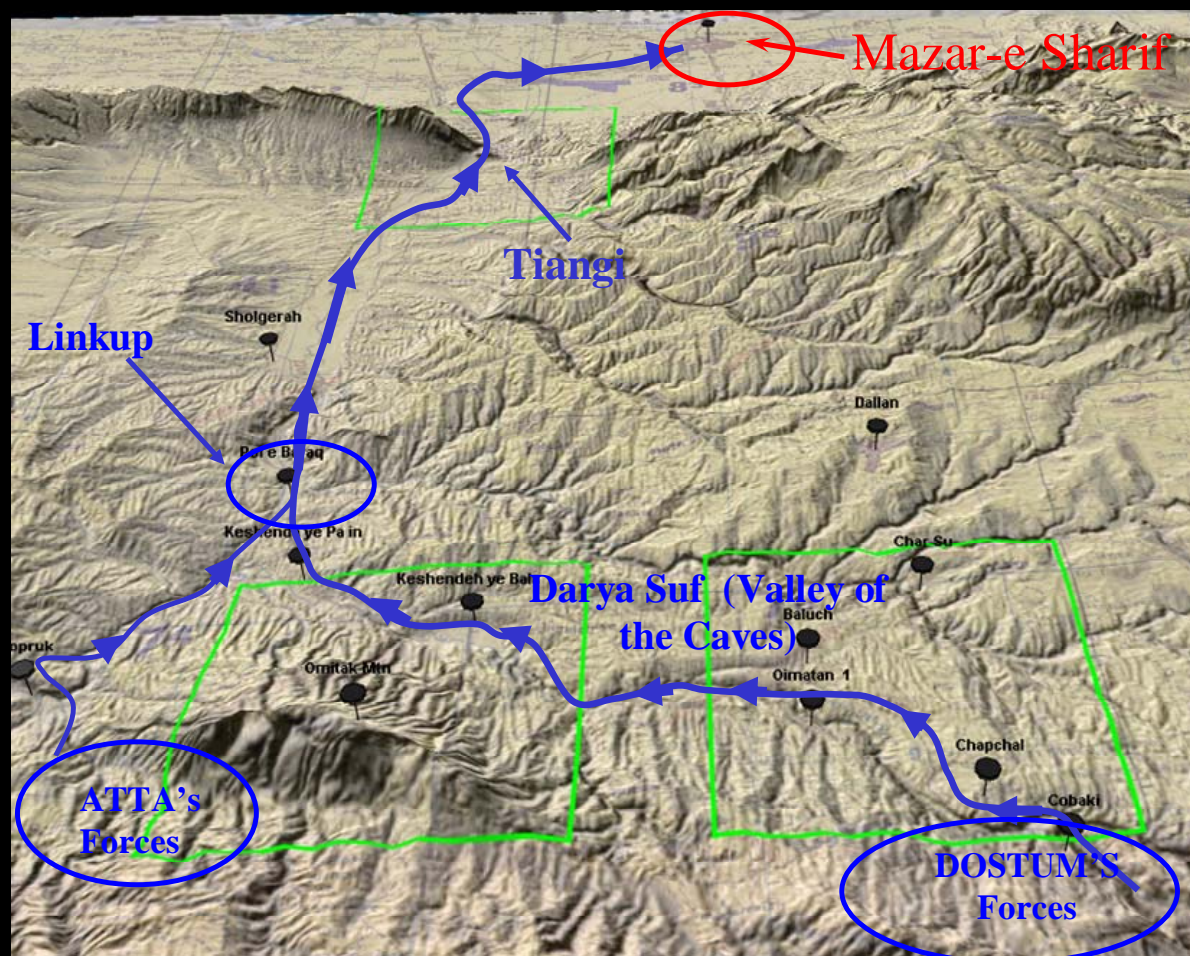


Again, this is the operational area. Mazar-e Sharif to the north. ODA 595, or call sign Tiger 02, was inserted to the southeast near the Afghanistan town of Dehi, where they linked up with General Dostum's forces on 20 October 2001.

They faced Mullah Razzak, the 5th Corp commander, who had 3,000 to 5,000 Taliban forces in this area, to include entrenched infantry, armor, artillery, and air-defense weapons.



# The Plan

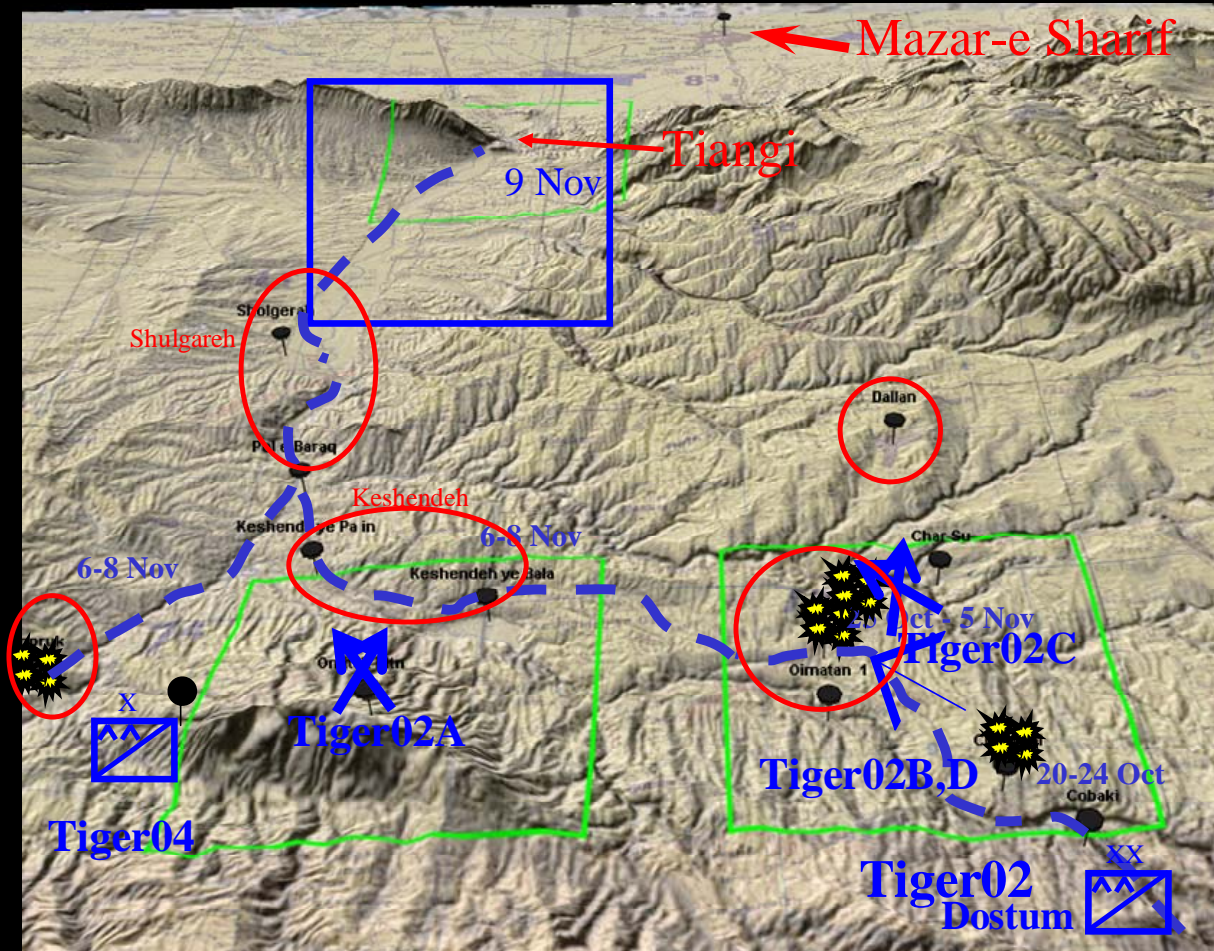


The ODA commander discusses General Dostum's strategy:

I traveled with General Dostum back to Dehi for the purpose an area command meeting. This is where we bring all these faction leaders together and General Dostum briefs his operations order, which is quite simple. By now, a coordinated attack is to begin on the 5th of November; it's about 5 days from the time we hold this meeting. By now, General Dostum is going to personally lead the now 2,500 horsemen northwest through the Darya Suf Valley. They will be supported by Commander Mohaqiq, the Hazara faction leader who has 500 infantry. Commander Ustet Atta will travel further to the west in the Balkh Valley, and he will personally lead the 1,000 fighters in reducing the Taliban garrison in the city of Ak Koprak. The two forces will then move north through the valley and they will simply link up at the convergence of the river. My commander said, "You've got to be kidding, there's got to be more to this operations order than that."<sup>10</sup>

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<sup>10</sup> ODA 595 Commander, USA, "Operation Enduring Freedom—U.S. Army Special Operations," Briefing at IDA, 31 May 2002.





There were a number of significant engagements that took place as the coalition moved through the Valley of the Caves and Shulgareh to Tiangi. This preview will generally discuss those engagements but focus on the engagement at Tiangi.

Within several days of insertion, Northern Alliance confidence in the accuracy and timing of U.S. munitions allowed horse-mounted Northern Alliance to begin their charge on Taliban armor and defensive positions while bombs were in the air, often passing through smoke and shrapnel to secure their objective. The battles at Beshcam and Chapchal on 20–24 October 2001 were hailed as the first cavalry charges of the 21st Century.

To support General Dostum's strategy to take the Darya Suf, the ODA Commander positioned Tiger 02A to the west to interdict Taliban reinforcements in the Keshendeh areas and those coming down through the Shulgareh. Tiger 02C was positioned to the north near Charsu to protect the northern flank against Taliban counterattacks from Dallan and Darreh-ye Dadel. Tiger 02D and B were positioned to support the main attack. In addition, on 3 November, ODA 534, call sign Tiger 04, was inserted to support General Atta to the west. On 5 November General Dostum's forces struck the Baluch area as General Atta attacked Ak Koprak. Breaking the back of the Taliban was attributed to these attacks. On the 8th they linked up in Shulgareh and moved to the Tiangi.

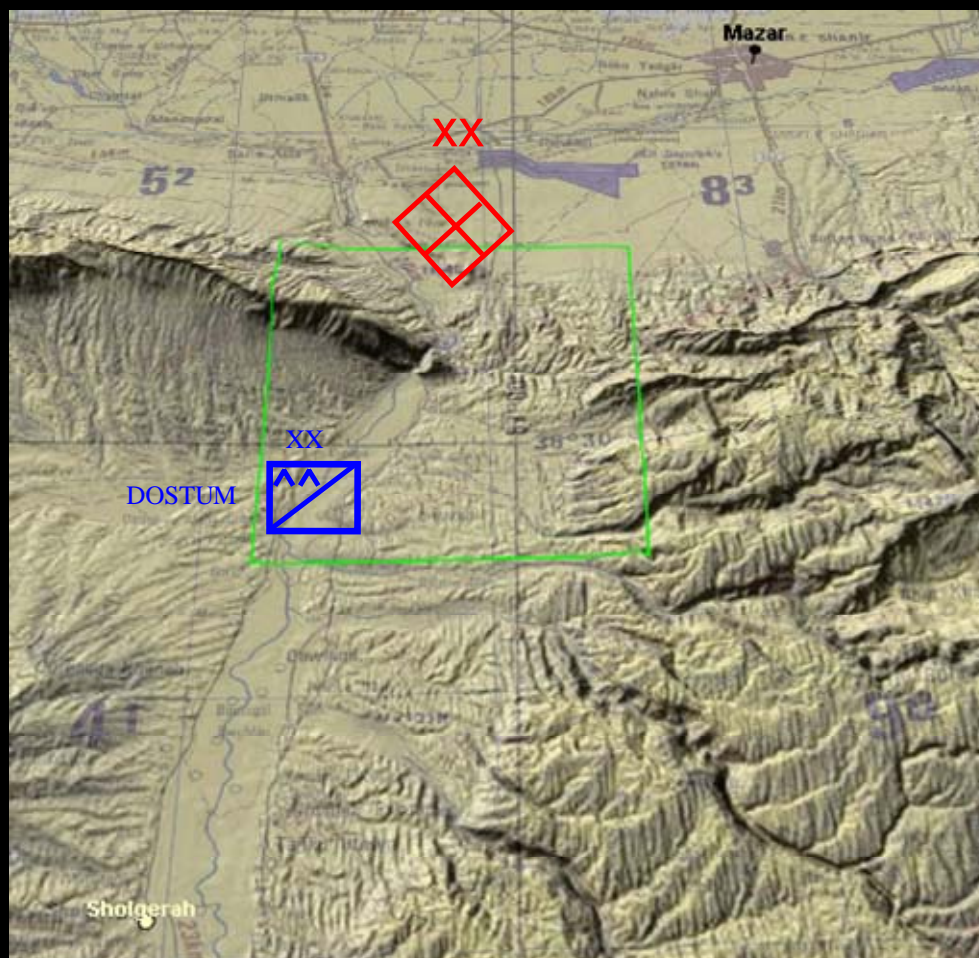
This is the area of operations for 9 Nov 2001.<sup>11</sup>

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<sup>11</sup> Blue and red force data for this slide and subsequent slides were taken from various sources: (1) interviews with General Dostum, his subcommanders, and General Bullah, former Taliban; and (2) the Battle Site Survey Team visit in December 2002, during which locational data, including Red Force battle damage and Blue Force (ODA Team and Northern Alliance) positions and movement, were recorded.



## 9 November—Initial Situation

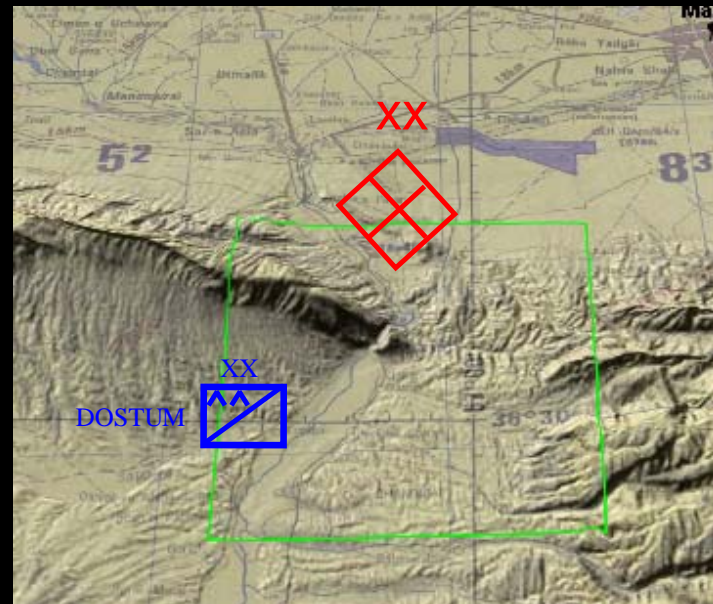




When the coalition forces arrived on the evening of 8 November, the enemy had forfeit the high ground and set up their last-stand defenses on the north side of the Tiangi.



## General Dostum's View of his Opponent



**GEN Dostum (translator: Esam):**

**“I knew that they didn’t know the strategy of war, because in a war you should take higher positions, but they were based mostly in the lowest positions so it means that they have no knowledge of war and the strategy...they were just deceived. They were so emotional that...they had just come to fight.”**

General Dostum comments on the Taliban positioning (translator: Esam): “I knew that they didn’t know the strategy of war, because in a war you should take higher positions, but they were based mostly in the lowest positions so it means that they have no knowledge of war and the strategy...they were just deceived. They were so emotional that...they had just come to fight.”<sup>12</sup>

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<sup>12</sup> General Rashid Dostum, interviewed at Tiangi, Afghanistan, 10 December 2002.



# Tiger 02 Perspective





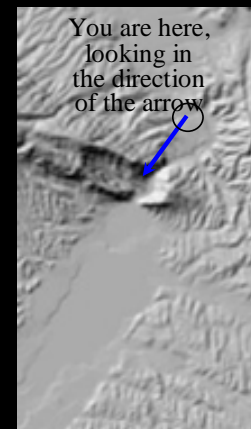
The ODA Commander describes the terrain, Taliban disposition, and the dangers presented by that narrow pass: That gap is about a quarter of a mile or less wide and 2 miles long. The Taliban had set up a reverse-slope defense where they are defending on the far side. They gave the Northern Alliance and us the high ground. They had employed extensive mines; that BM-21 rocket launched artillery with some success, and they were employing ZSU 23-2s in a direct-fire role. They were firing those 23 mm shells down the north end of that canyon and those rounds just ricocheted down the canyon. Northern Alliance morale was going down rapidly at this point. This is where we suffered the majority of our casualties.<sup>13</sup>

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<sup>13</sup> ODA 595 Commander, USA, “Operation Enduring Freedom—U.S. Army Special Operations,” Briefing at IDA, 31 May 2002.



# Initial Push Into the Tiangi





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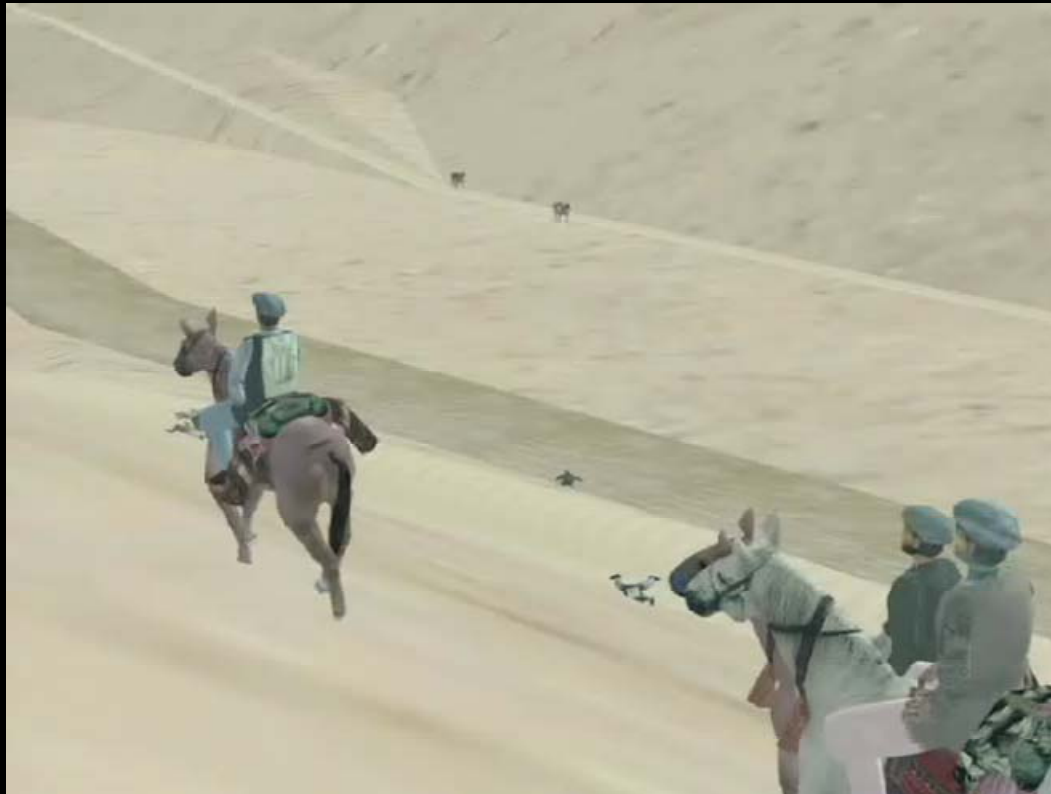
They effectively mined the pass: “Out on the far side of the pass about six troops had been killed by stepping on mines.”<sup>14</sup>

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<sup>14</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



## Northern Alliance Forces Seek Cover





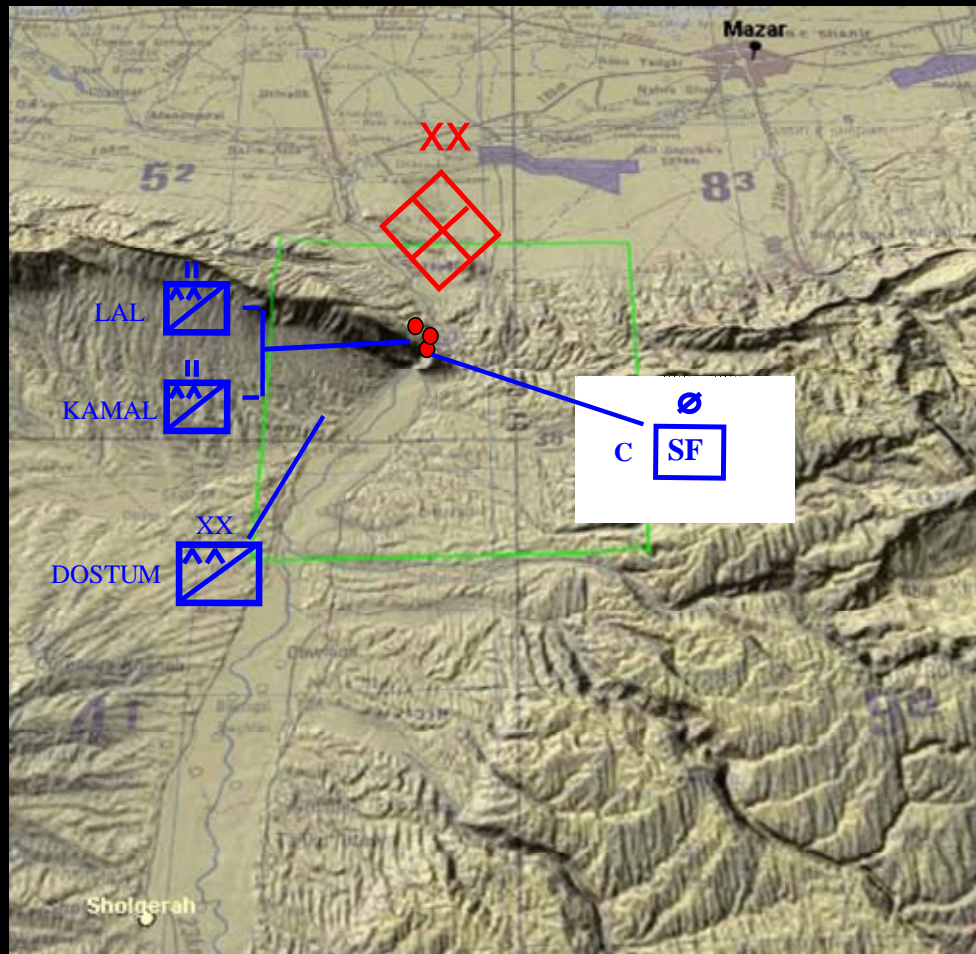
Even the river was mined: “There were mines in the river crossing. The horsemen had tried to cross the river. There were dead horses and troops in the water.”<sup>15</sup> As the ODA Commander indicated, it was demoralizing for the Northern Alliance to see their comrades coming out of the Tiangi on stretchers.

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<sup>15</sup> Ibid.



## Tiger 02C Moves to the Kafer Qalah





Early on the morning of the 9th, the Northern Alliance forces were pinned down in the pass. The detachment operations sergeant, now the cell leader for Tiger 02C, took his cell to the top of the Kafer Qalah. His mission was to call for fires on the Taliban defenses north of the Tiangi.



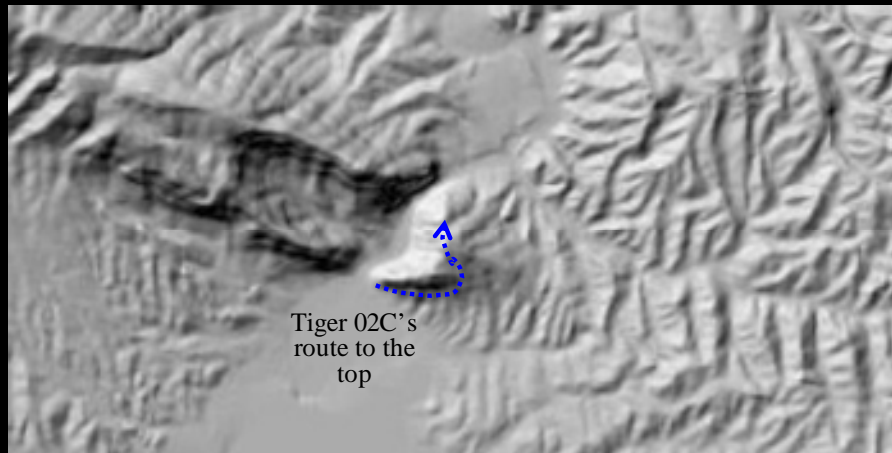
# Tiger 02C Moves to the Kafer Qalah



Looking  
north  
from the  
Kafer  
Qalah



Walking  
up the  
Kafer  
Qalah



Tiger 02C's  
route to the  
top



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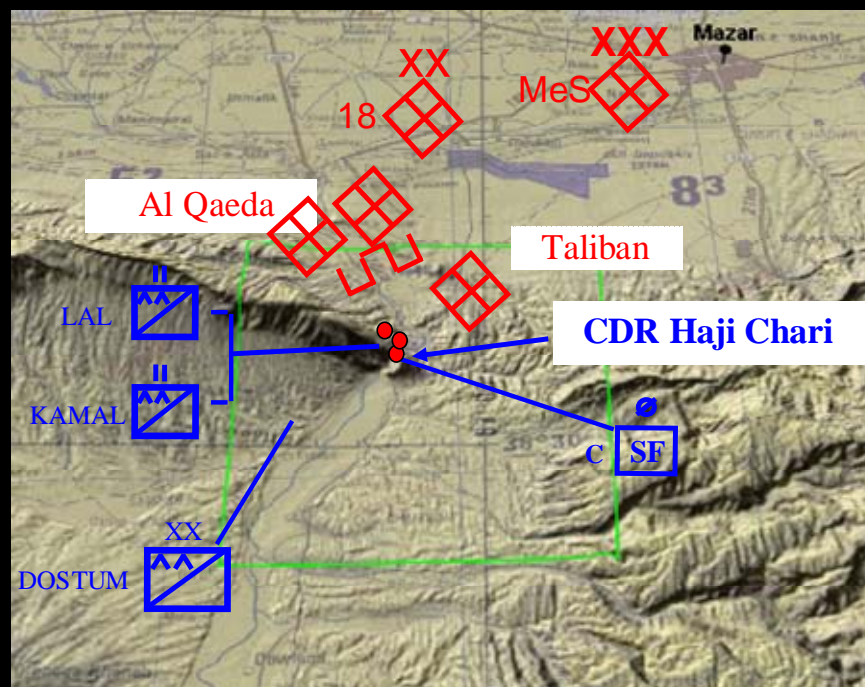
The Tiger 02C Cell Leader describes his movement to the top: “We get to the foot of that and then we had to basically walk up this 2,621 foot mountain in the middle of the night. We get up there, and there is about a squad worth of guys at the top. It’s pitch black and cloudy and you can’t see anything.”<sup>16</sup>

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<sup>16</sup> ODA operations sergeant and Tiger 02C cell leader, interviewed at Fort Campbell, Kentucky, 22 January 2003.



# Taliban Disposition



**Commander Haji Chari (translator: Hafiz):**

**“The next morning we started our attack on the enemy’s force and on our side of the river were Taliban and the left side were Al-Qaeda foreigner Taliban.”**

Commander Haji Chari who was with Tiger 02C atop the Kafer Qalah, discusses the disposition of Taliban forces (translator: Hafiz): “The next morning we started our attack on the enemy’s force and on our side of the river were Taliban and the left side were some Al-Qaeda foreigner Taliban.”<sup>17</sup>

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<sup>17</sup> Commander Haji Chari, interviewed at the Kafer Qalah, 10 December 2002.



# Tiger 02C on the Kafer Qalah





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The Tiger 02C Cell Leader, also atop the Kafer Qalah, describes weather conditions on the morning of the 9th and their planning for the initial missions:

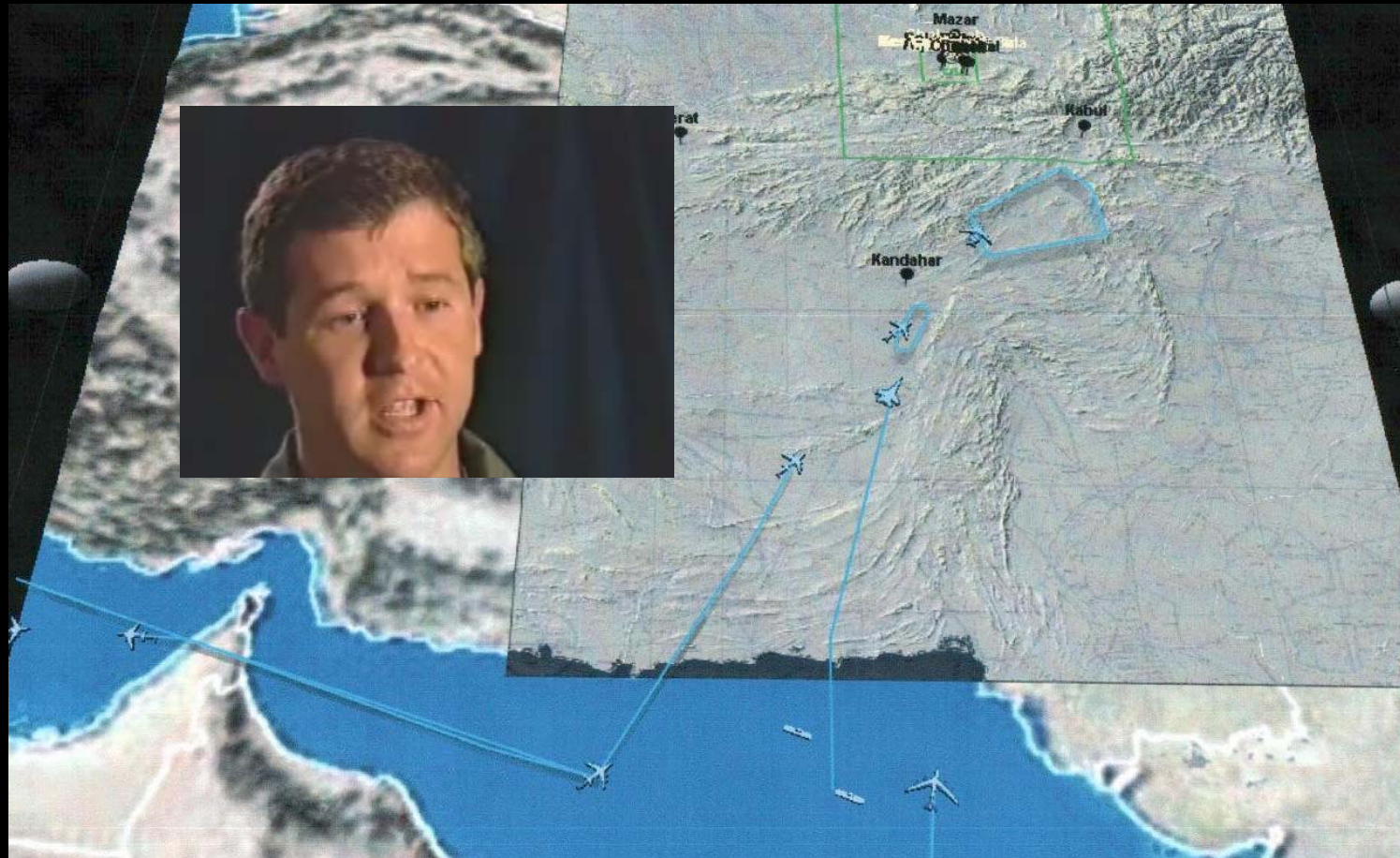
Morning came in and it was overcast—we were in the clouds. We were having a hard time seeing anything until 9 or 10. We were on the high ground at some 2,000 feet. From up here we were looking down into their fighting positions. We set it up where it was going to be one-two-three.<sup>18</sup>

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<sup>18</sup> ODA 595 Operations Sergeant and Tiger 02C Cell Leader, interviewed at Fort Campbell, Kentucky, 22 January 2003. ODA and Northern Alliance spoke in terms of “local” time. In many cases, those times were approximate unless the events could be corroborated with a recorded event, such as an airstrike.



# Air Operations Northern Afghanistan





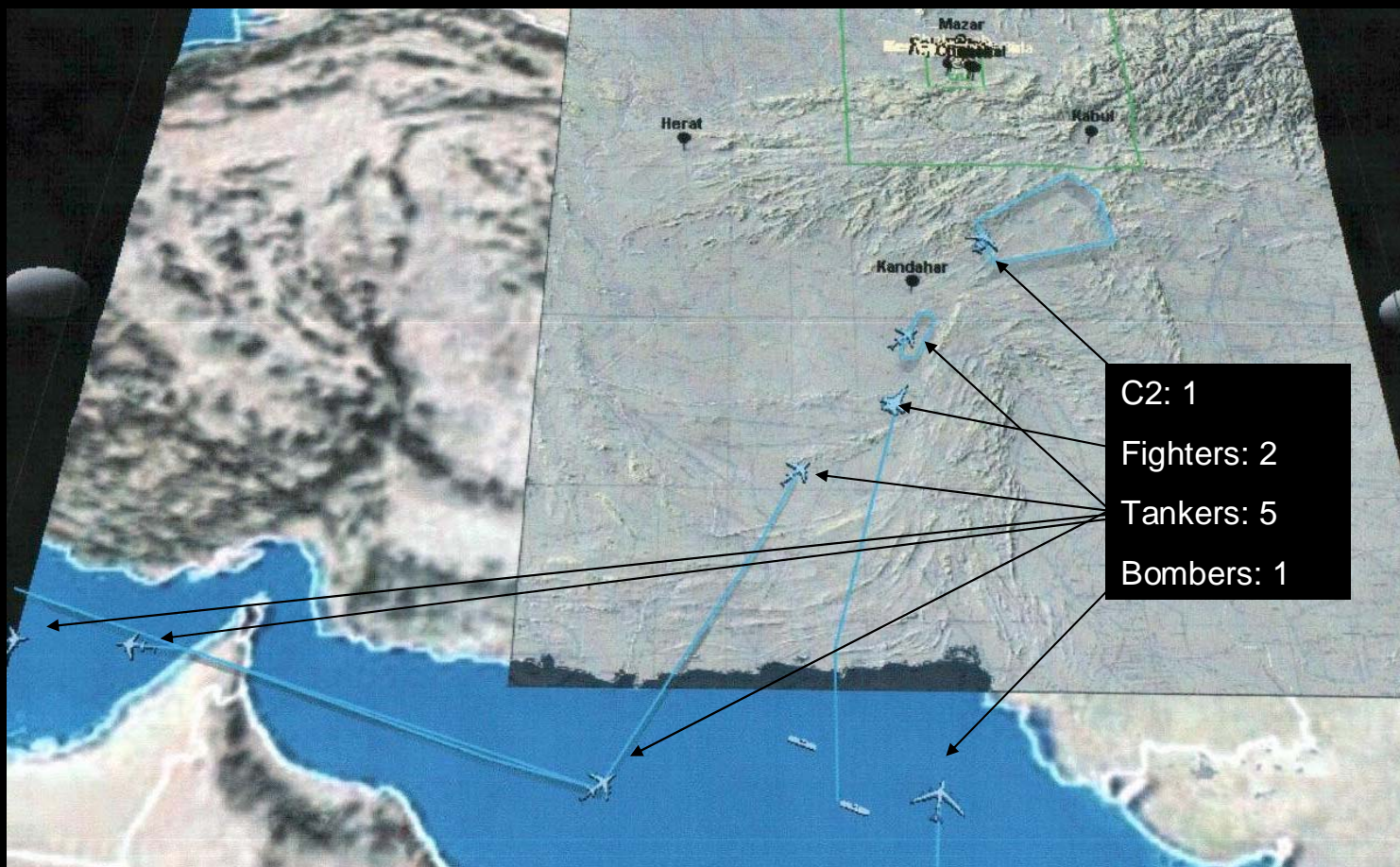
But the air picture was more complicated than 1, 2, 3. Command and control and tankers had to be positioned to support the inbound aircraft. A Navy fighter pilot comments on the difficulties in operating in the northern parts of Afghanistan. “What we would generally do is tank in the southern portion of the country, maybe even in the Pakistan airspace; fly all the way to the northern portion of the country, get some more gas, go do our target area work, get gas again, gas one more time in southern Afghanistan, and then ultimately head home.”<sup>19</sup>

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<sup>19</sup> U.S. Navy Fighter Pilot, USN, interviewed at Beauford, South Carolina, 12 June 2003.



# 090125Z Air Operations

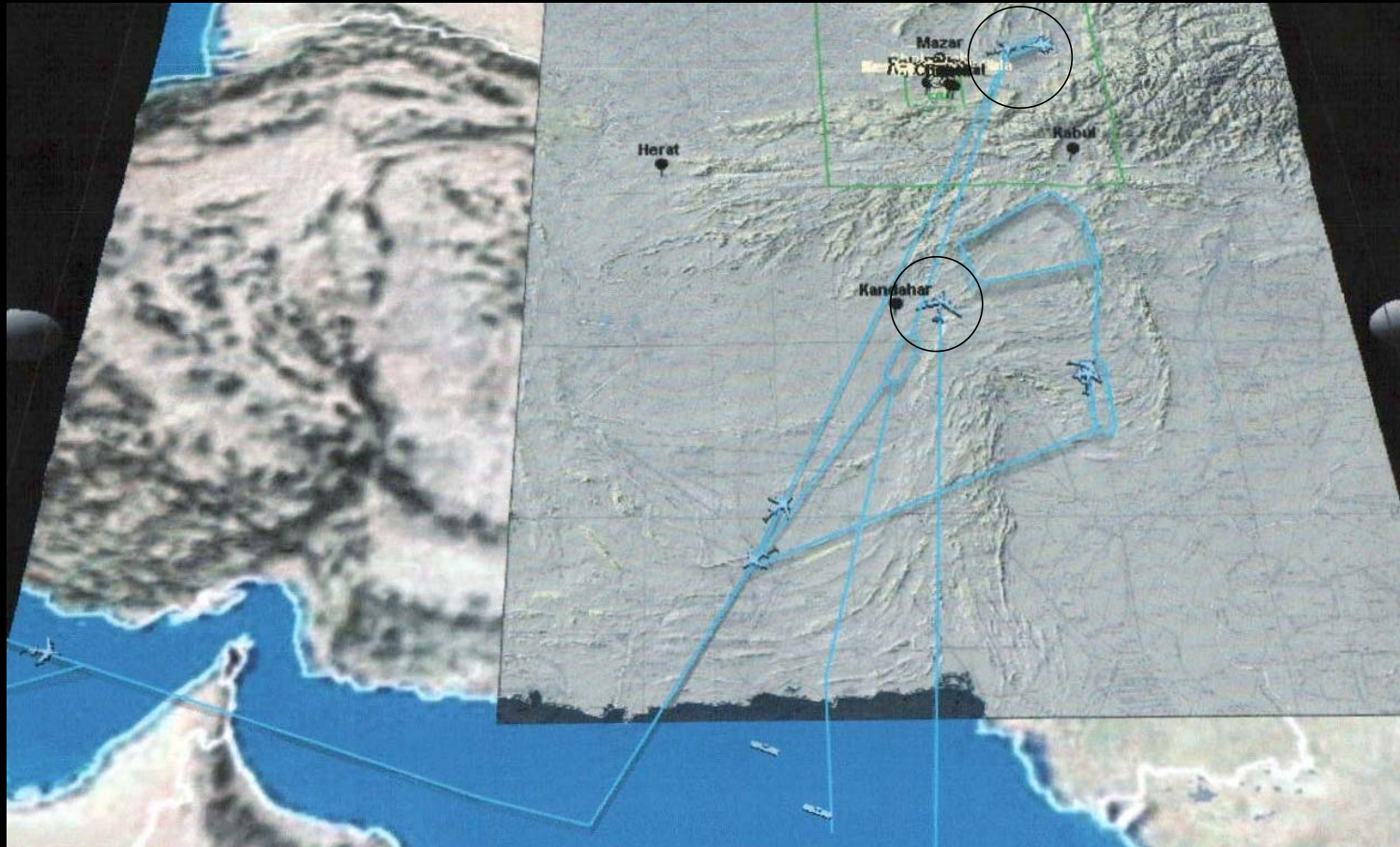




This is the air picture at 0125Z 9 November. The box on the right shows the Aircraft supporting the fight in the north. An E3C for command and control was located north east of Kandahar. Two F-14s departed the Carl Vinson for Mazar, a 710-nautical-mile journey requiring two refuelings. Their first stop is with a KC-10 orbiting mid-country. A tanker (KC-135) currently behind the F-14s is repositioning to the east of Mazar to provide the second refueling for the F-14s. There are three other tankers in orbits to support aircraft coming from Diego Garcia, the Gulf area, and the carriers. A B-52 from Diego Garcia, a 2,600 nautical mile journey to northern Afghanistan, will refuel once before entering the target area



# 090248Z Air Operations



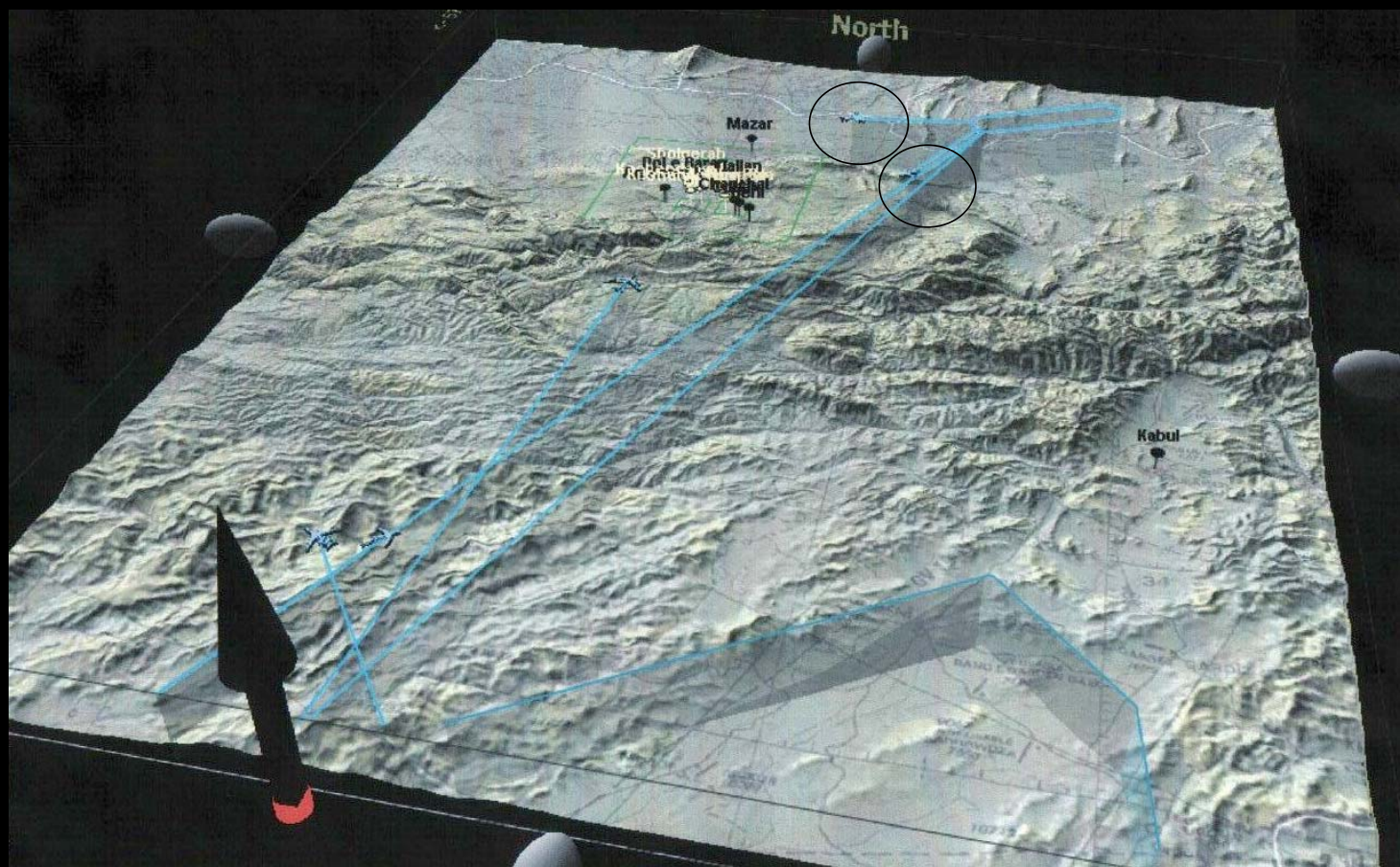


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At the top of the screen are the two F-14s refueling from the KC-135 east of the target area. The bomber is still inbound.



# 090325Z Air Operations

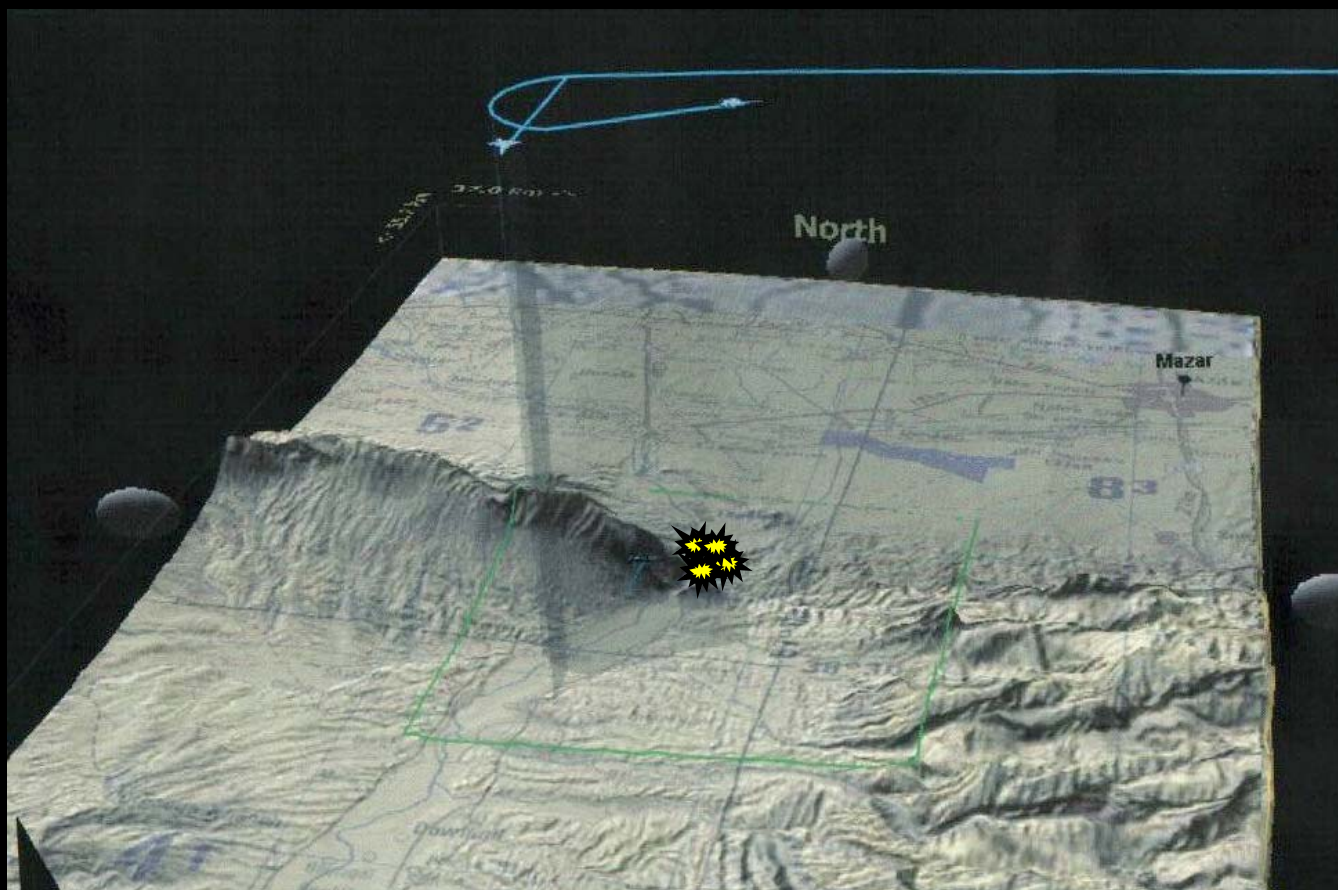




It's 0325Z, and the F-14s depart, refueling to the west for the target area and contact Tiger 02C. The KC-135 departs the refueling orbit. The tanker will set up another refuel point to the south of Mazar to support the F-14s as they egress the area.



# 090333Z Wakeup Call

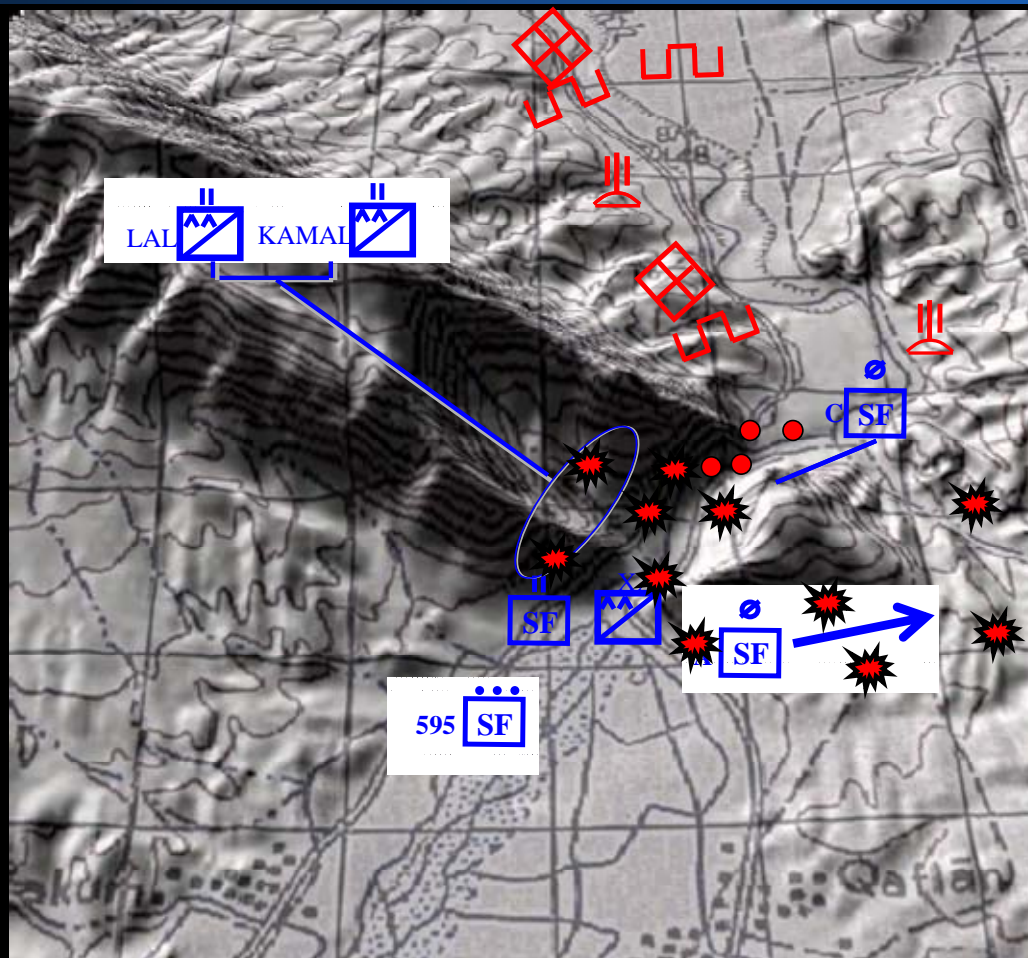




It's 0333Z and the F14s are on target. Tiger 02 affectionately calls this the Taliban's wakeup call. They drop several precision bombs (GBU 16s) and General Purpose Bombs (Mark 83s). Within the next hour, the B-52 releases approximately 50 General Purpose Bombs (MK82s)



# The Taliban Strike Back





By 1200 the rest of ODA 595 was briefed on the mission. As Tiger 02A deployed to the east they were caught in the midst of a devastating rocket attack.



# Tiger 02A Location





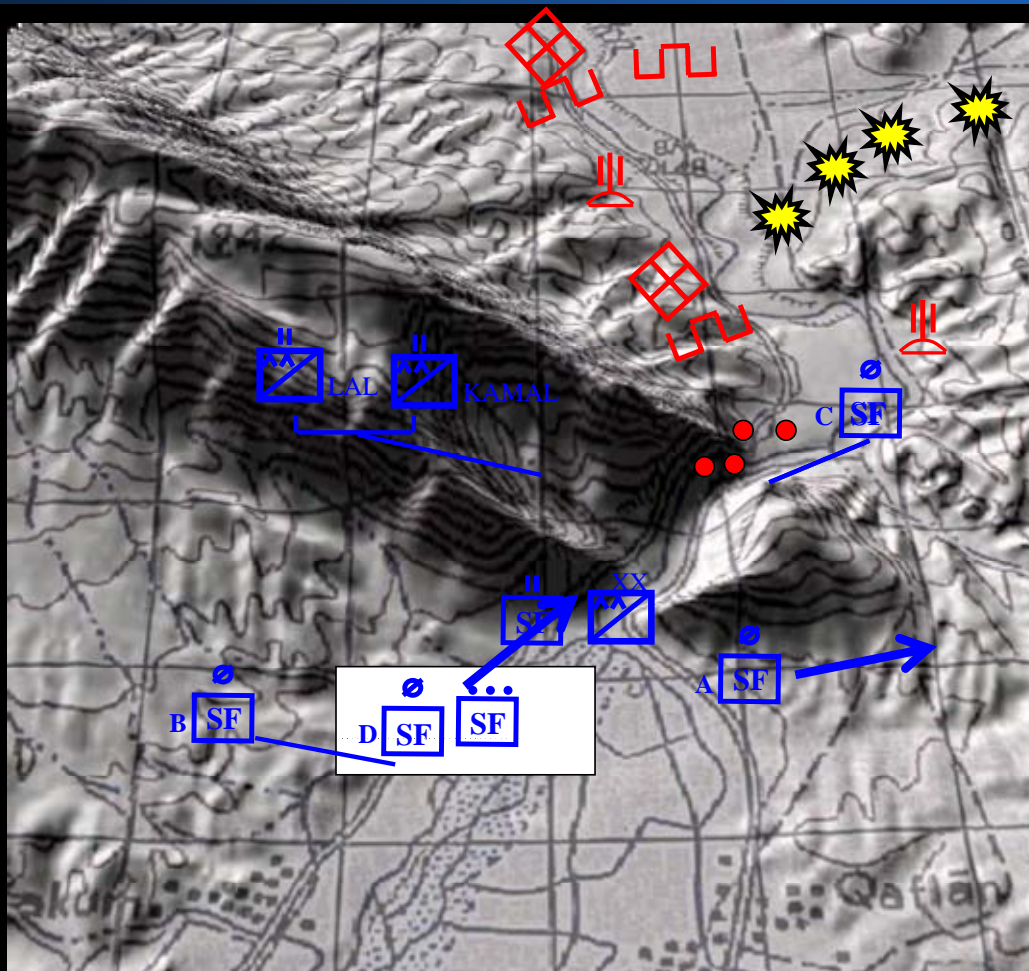
The ODA Commander describes the attack: “It was around 1500 in the afternoon and the whole area just erupted through there in big dust clouds and dirt and debris, and I thought for sure that our three guys from our team had been killed. I knew that General Dostum had come up here very close to it. We couldn’t raise anybody on the radio.”<sup>20</sup>

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<sup>20</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



# Tiger 02 Moves to the Tiangi

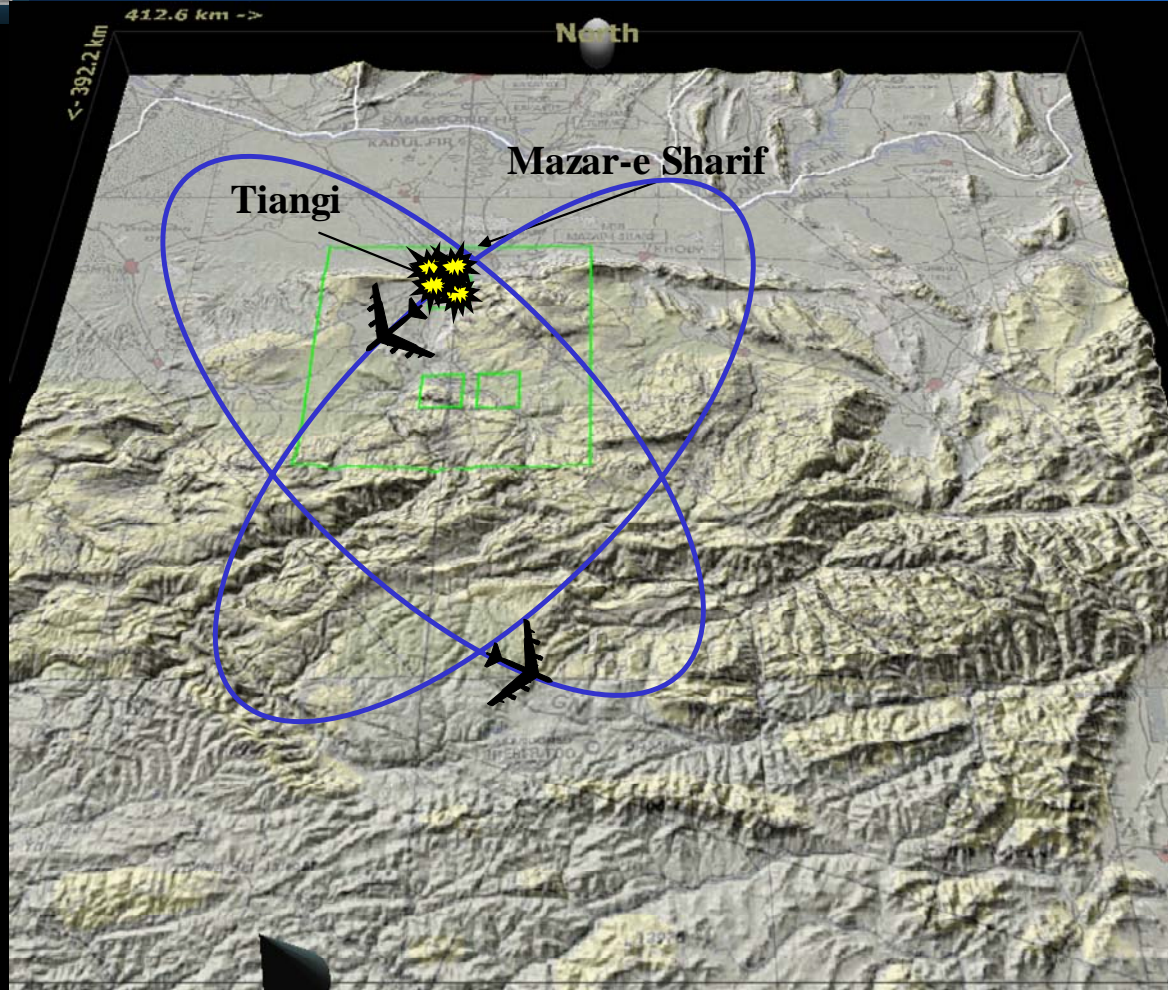




Concerned about his troops and General Dostum, the ODA Commander mounts up with elements of Tiger 02D and at a gallop approaches the Tiangi. At that time Tiger 02C is in contact with a B-52 and targets Taliban defenses.



# B-52 (2) Support at the Tiangi

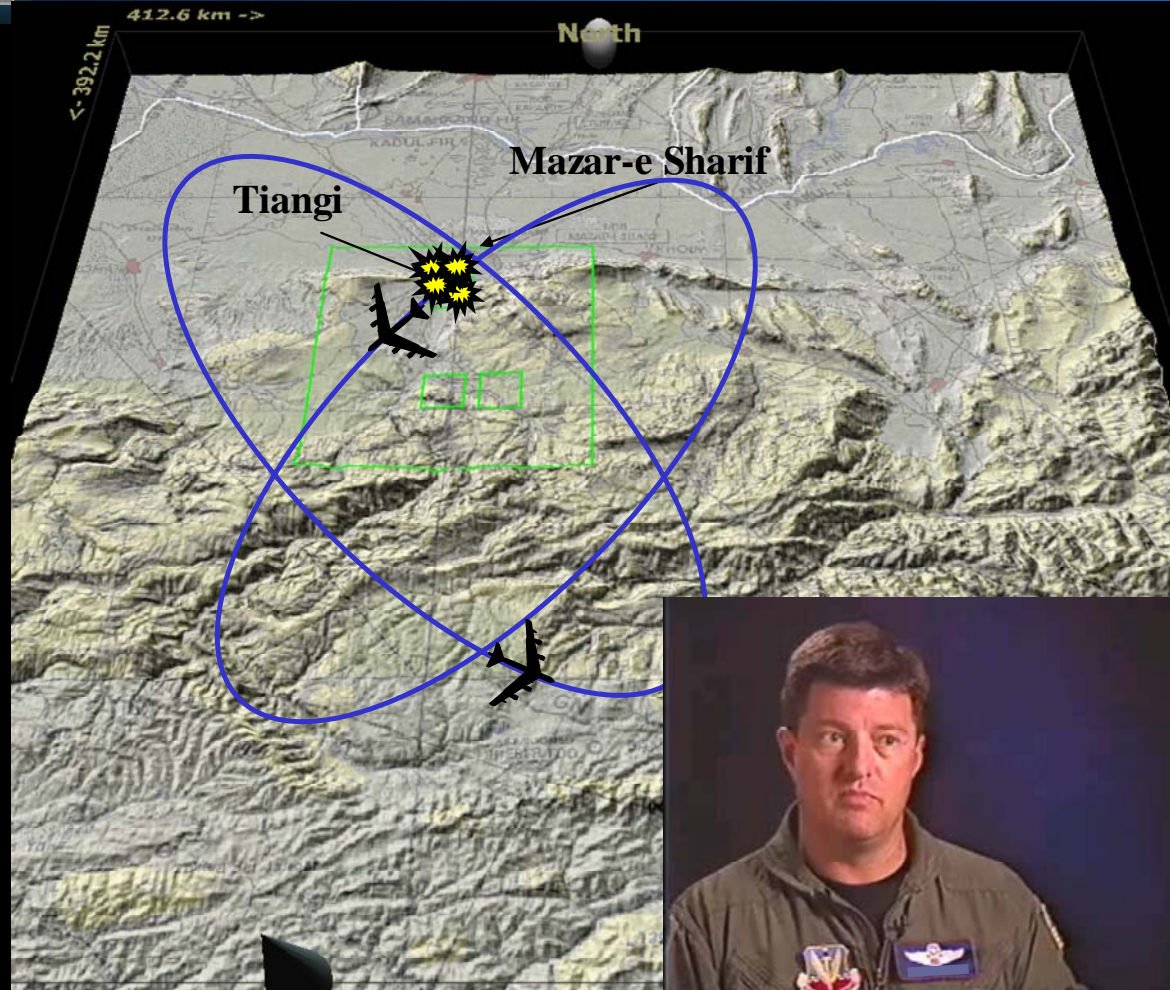




Actually, there are two B-52s overhead supporting the battle, and they are loaded with Joint Direct Attack Munitions, or JDAMS.



# B-52 (2) Support at the Tiangi





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A B-52 Pilot that supported Tiger 02 in Mazar comments on the necessity of the ground forces to put eyes on the target: “We had the precision weapons, we had the communications systems, but until you had a set of eyes on the ground to make everything fit together, it was the key piece of the puzzle as far as getting the weapons on the targets they needed to be on to make a difference in the conflict.”<sup>21</sup>

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<sup>21</sup> B-52 Pilot, USAF, interviewed on 21 May 2003.



# Strikes Increase in Intensity





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The weapons expert with Tiger 02C gives his perspective of the strike:

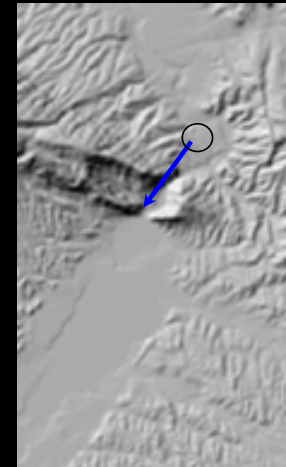
We had a B-52 that was waiting...he had 25 JDAMs. He used 12 on this pass. There were about 20 guys up here...he covered the whole hilltop. Whoever survived was running to the west, trying to get to Mazar, and there were a good 20 or 30 guys, and we just set up a box and he dropped his last 13 rounds. It was in the middle of the box.<sup>22</sup>

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<sup>22</sup> ODA 595 Weapons Sergeant with Tiger 02C, interviewed at Fort Campbell, Kentucky, 22 January 2003.



# Alliance Rallies Behind Tiger 02





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In the meantime, the ODA Commander has entered the pass and describes the Northern Alliance soldiers falling in behind them:

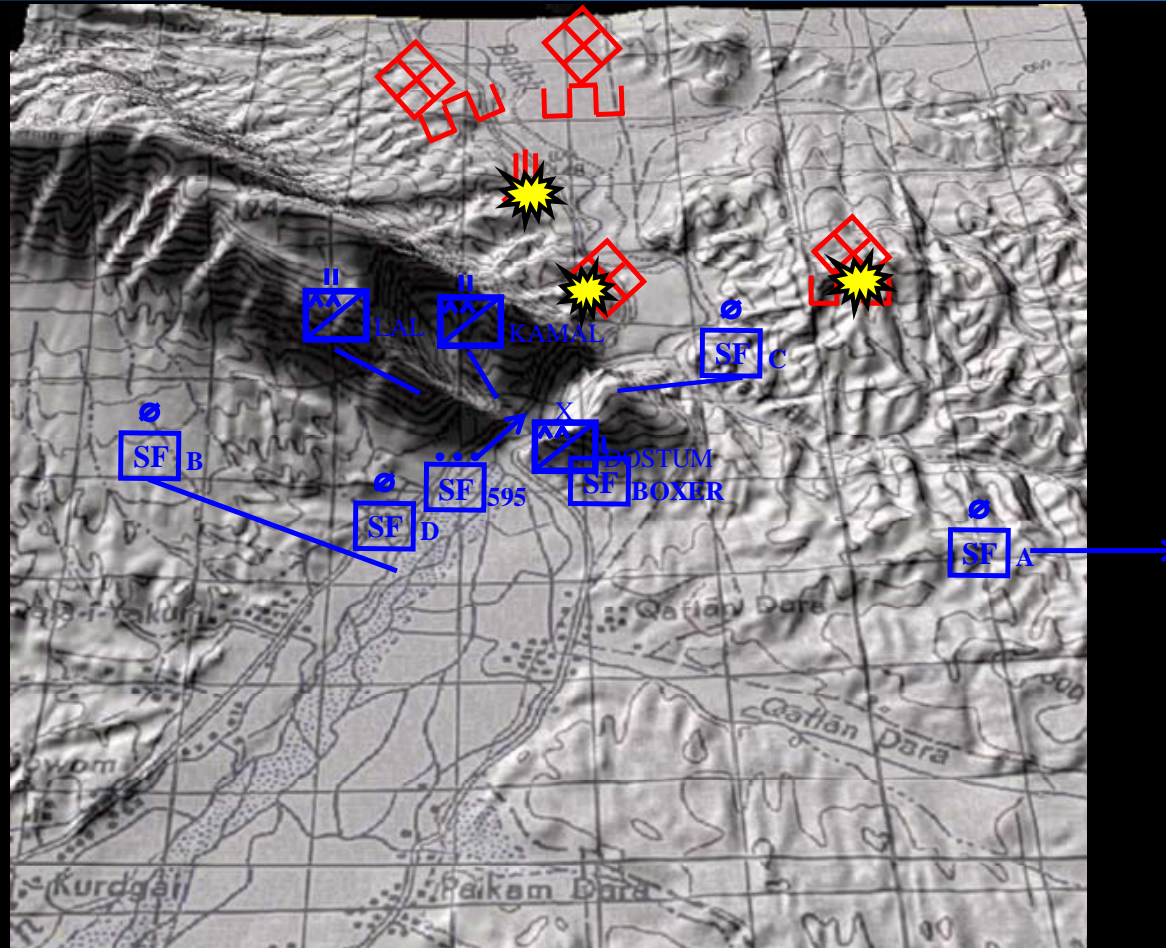
This little cave off to the left...From there up to the point where the rocks are there were just hundreds of soldiers taking shelter in the rocks from the volleys. As they saw us coming on horseback, they came down and lined both sides of the road for several hundred meters there, some of them on foot, some of them on horseback, but as we rode through the pass they just jumped onto the road behind us.<sup>23</sup>

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<sup>23</sup> ODA 595 Commander, USA, interviewed at Tiangi, Afghanistan, 11 December 2002.



# Targeting Taliban North of the Gap

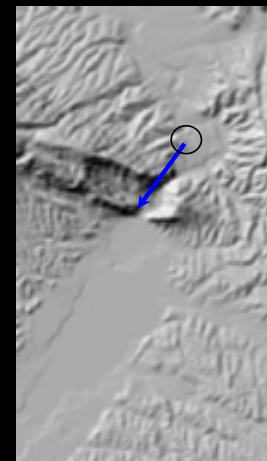




Northern Alliance movement through the pass, along with air support pounding the Taliban defenses, starts to show signs of success.



# Midway Through the Tiangi





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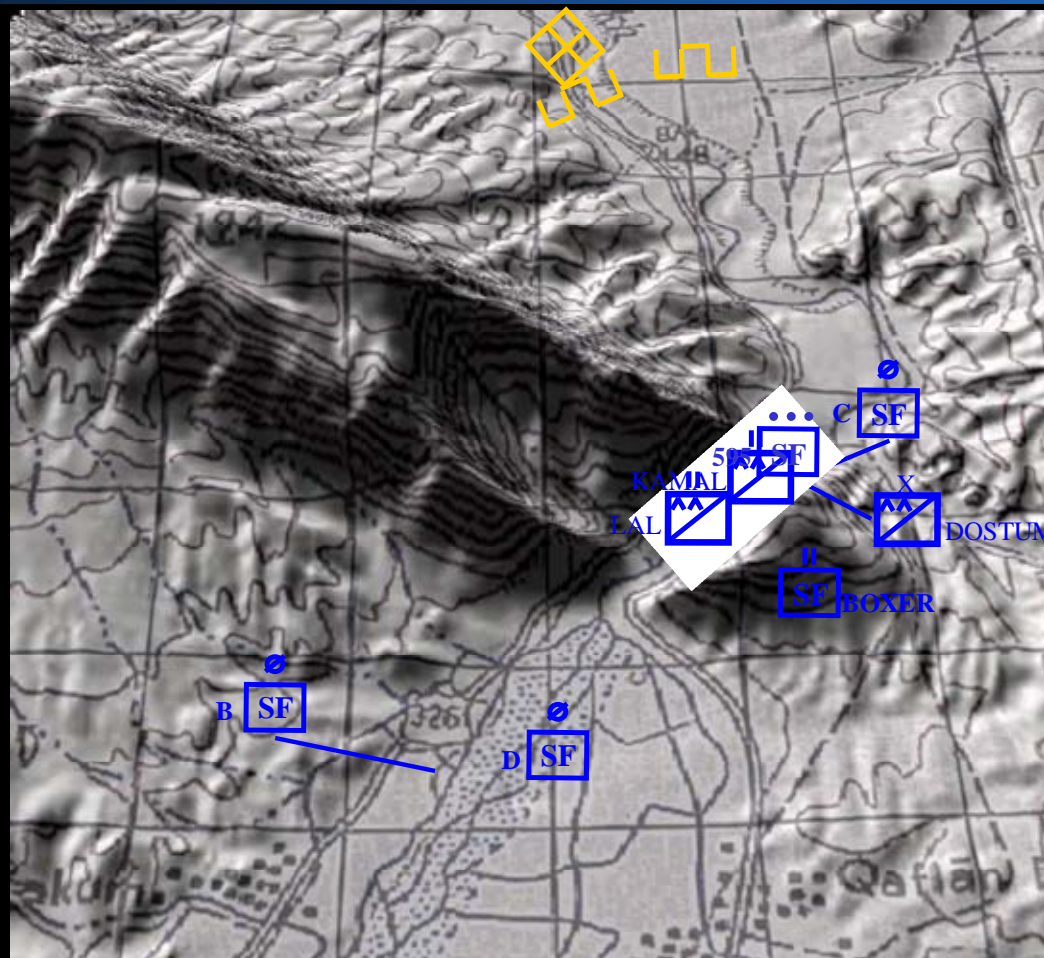
The ODA Commander links up with Commander Kamal in the pass: “We found him up there on the left, and he was extremely upset that we were that close in the fight and wanted us to turn back, and we had all of these troops with us.”<sup>24</sup>

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<sup>24</sup> Ibid.



# Breakthrough

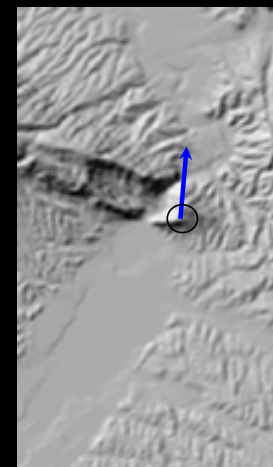




Despite Commander Kamal's concern, the ODA Commander, with his vanguard of Northern Alliance horsemen and foot soldiers, continued to move forward.



# The Road to Mazar is Open



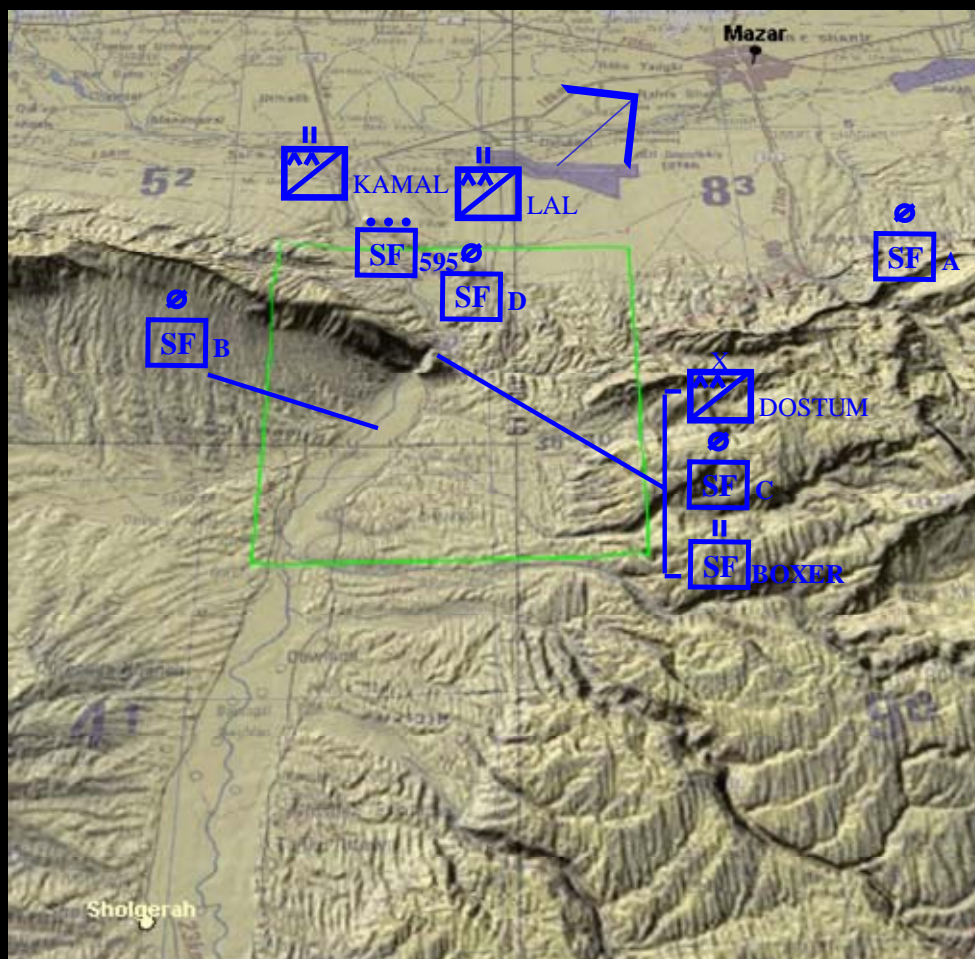
The ODA Commander describes the movement of forces through the Tiangi: “As Dostum’s forces are pushing up to the gap, each side of the gap, and through the gap, Commander Atta is following with his forces to push through the gap once the gap is secured. This is finally done on the night of 9 November, and Dostum and Atta’s forces push up to the outskirts of Mazar-e-Sharif.”<sup>25</sup>

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<sup>25</sup> Ibid.



# End of Day

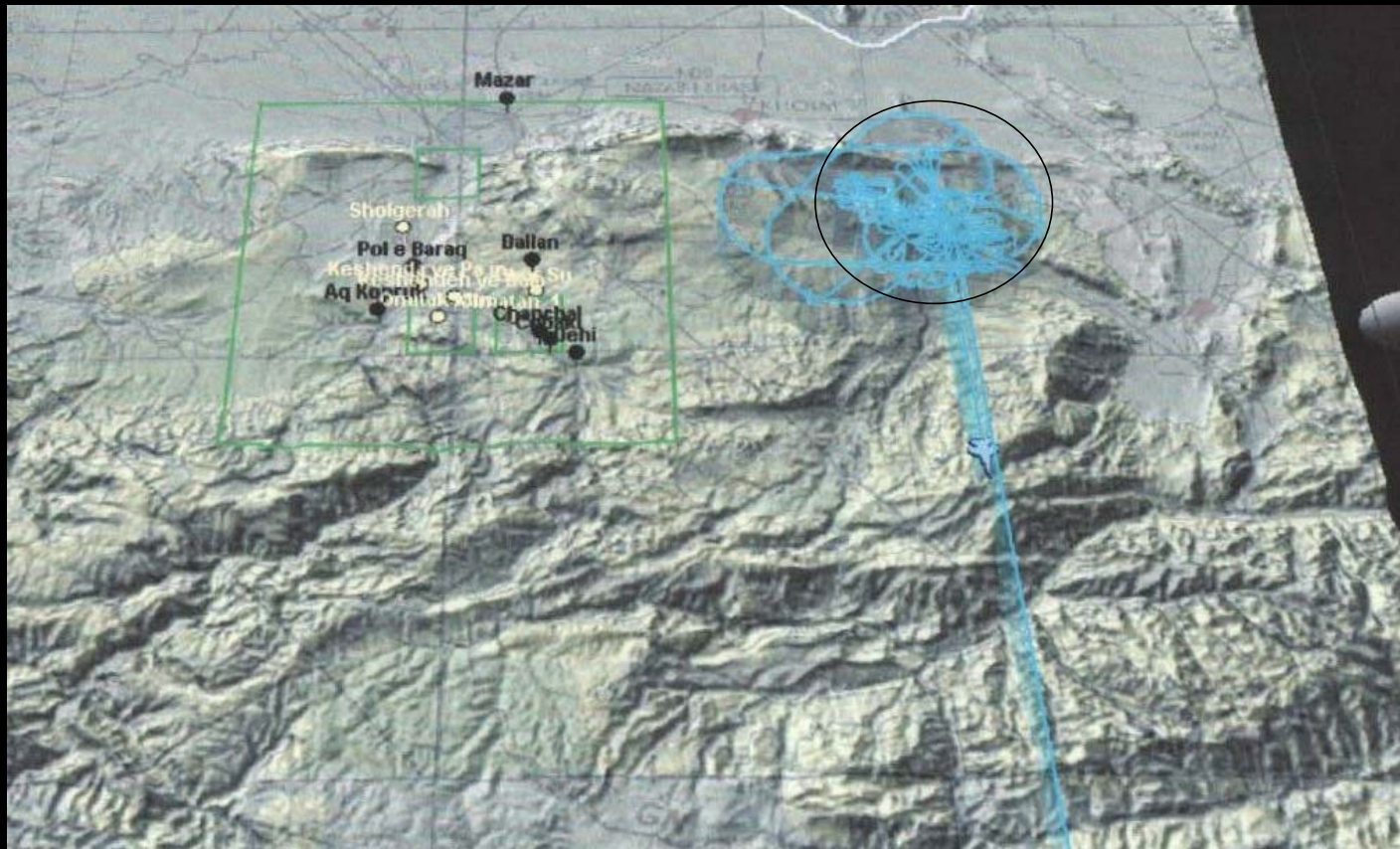




By the end of the day, the coalition forces are through the gap, and the Taliban are fleeing the city.



# 091630Z Air Operations

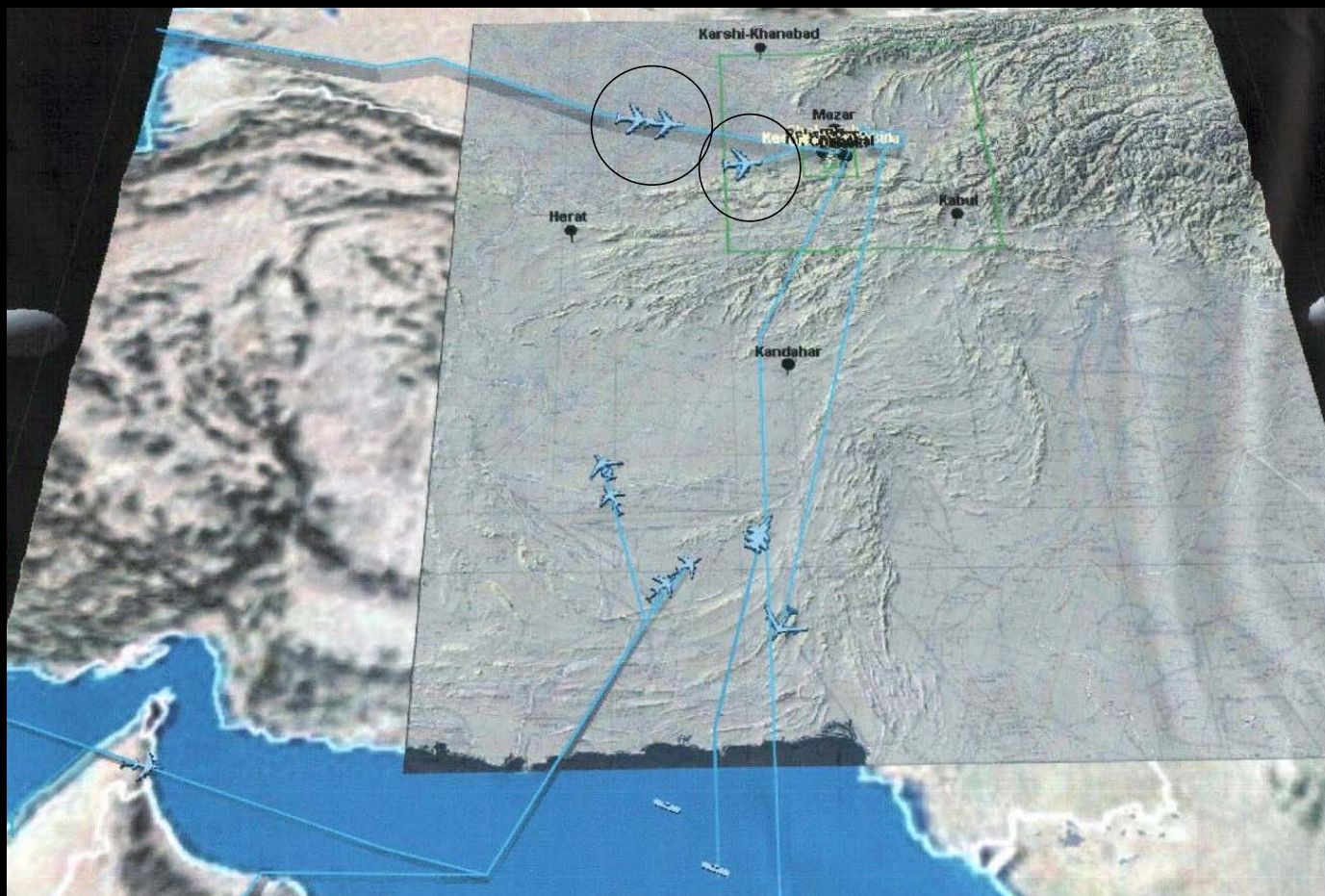




But the air operations don't stop; they're available 24/7. Despite the reduction in air requests from the Mazar area, the air-to-ground battle shifts to the east as Taliban forces flee to and congregate near Konduz.



# 092220Z Air Operations



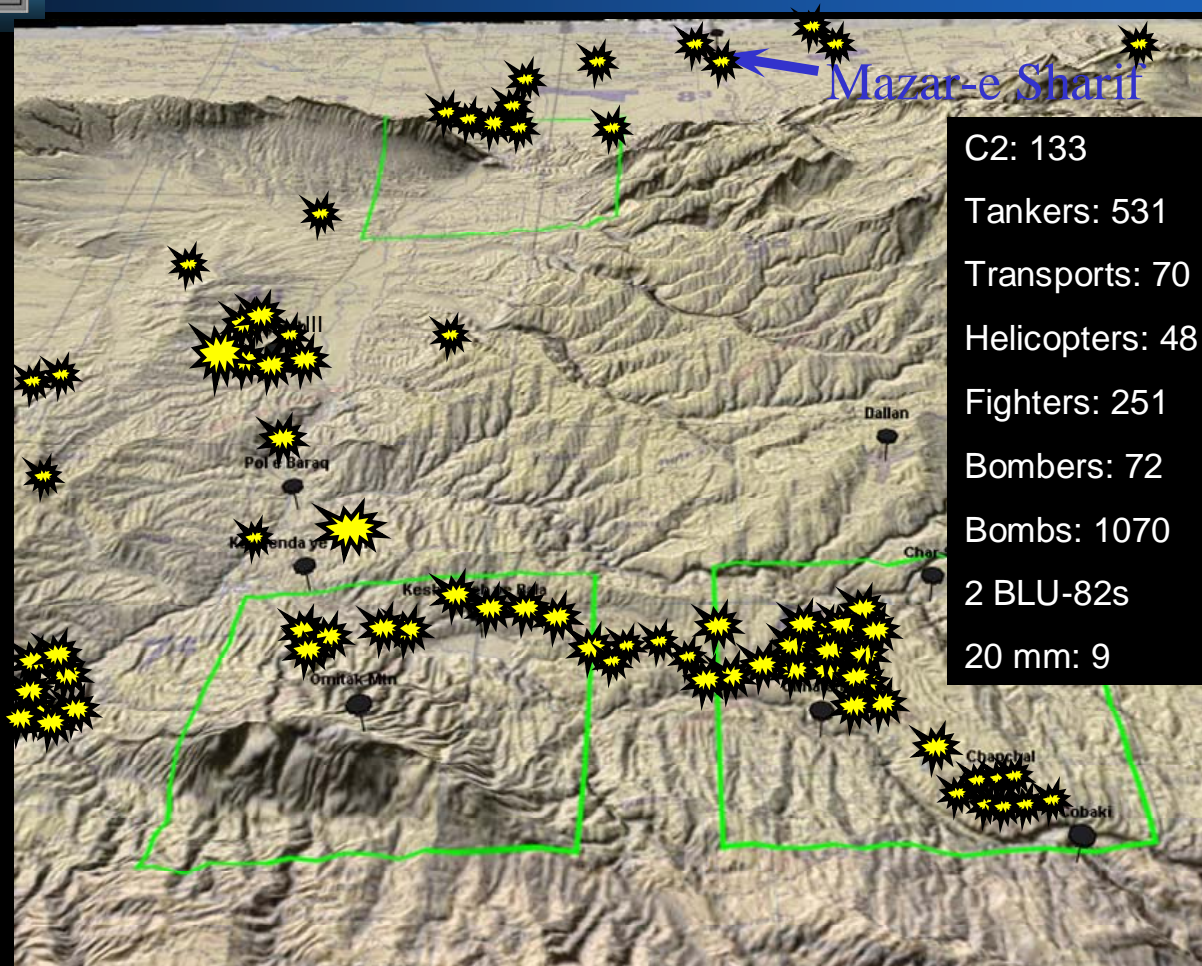


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It's 2220Z. In addition to maintaining command and control and tanker, bomber, and fighter support, two C-17s head into the Mazar area to provide humanitarian aid, and one MC130H drops supplies to ODA595. In particular, they've just received much needed batteries to sustain them in the next day's fight in Mazar.



## Air Strikes: 20 October–9 November 2001



C2: 133

Tankers: 531

Transports: 70

Helicopters: 48

Fighters: 251

Bombers: 72

Bombs: 1070

2 BLU-82s

20 mm: 9



The battle for Mazar-e-Sharif took approximately 3 weeks from insertion to fall. It was executed by three Special Forces Operational Detachments—two ODAs and an ODC—and attached Air Force special operators. The Northern Alliance provided the ground maneuver force. All the fire support was delivered by air.

Here is a roll up of the air support. Note the use of the 20 mm gun runs to support ground forces in danger of being overrun.



# Transformational Aspects



- Combined and Joint Interdependence
  - Northern Alliance (NA) forces, 4 separate ethnic factions / goals
  - OGA, air-power and logistics resupply
- Intelligence
  - Ability to plug into local underground / intel net with extensive HUMINT sources across entire UWOA, including within the Taliban forces
  - Communications intercepts, psychological and fire-support nets
  - Allowed timely and accurate targeting of time sensitive / high-value targets to be struck by NA and CAS
  - Inter-agency intel shared at source / pushed to the field
- Fire & Maneuver
  - Synchronize 19th-century NA maneuver elements, secure key terrain / OBJs
  - Employ all manner of inter-Service aerial platforms: B-52 / Predator UAV
  - Adjust targeting techniques / procedures, shorten air coordination cycle
  - Apply precision firepower to avoid / minimize collateral damage
- Logistics
  - Local procurement, battlefield recovery and able to “live off the land, like Apaches”
  - Rapid procurement and aerial delivery of SOF specific items
  - Lethal as well as nonlethal aid, humanitarian and medical aid
  - In-flight aerial coordination and refueling





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The ODA Commander discusses the transformational aspects of the battle:

Some *transformational aspects* of our operations in Afghanistan include a combined and joint interdependence down to the survival level. Upon arriving in Afghanistan we had to establish rapport with our counterparts. We had to help them form and unite a Northern Alliance force of four separate ethnic factions. Each of these ethnic factions had their own separate agendas and goals. We would coordinate our efforts and work closely with other government agencies. We would employ air power to secure our tactical gains and our Northern Alliance force to secure those objectives.<sup>26</sup>

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<sup>26</sup> “ODA Commander’s Brief to Association of the U.S. Army,” Winter Symposium, Ft. Lauderdale, Fla., 5 March 2004.



# Transformational Aspects



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“Our ability to establish rapport and plug into this local underground intelligence net would provide extensive human intelligence sources, which could then be exploited in the battlefield, and some of these sources were even from within the Taliban forces we were fighting.”<sup>27</sup>

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<sup>27</sup> Ibid.



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These three-man elements of Special Forces NCOs were each out there, advising between 500–750 Mujahedeen fighters. They would synchronize our 19th-century force of horse cavalry and light infantry against an armor and mechanized force. We would employ all manner of inter-Service aerial platforms, including a B-52 and Predator UAV. We would do this in hundreds of sorties employing nearly 1,100 munitions to help shape the battlefield.<sup>28</sup>

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<sup>28</sup> Ibid.



# Transformational Aspects



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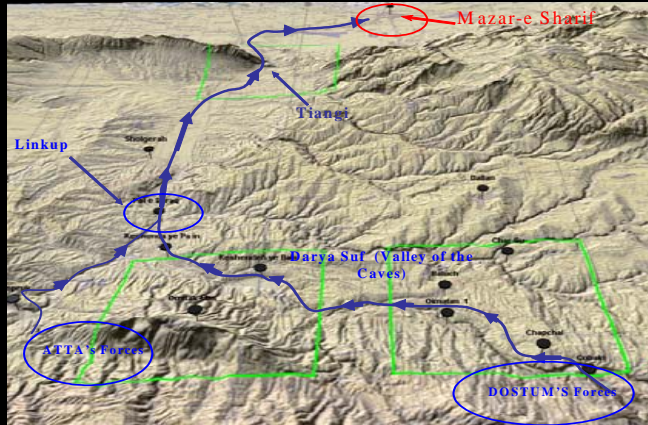
“This is a very austere logistics environment. Everything we got was either locally procured or recovered off the battlefield ....[I]tems that we generally needed would be aerial delivered into Afghanistan.”<sup>29</sup>

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<sup>29</sup> Ibid.



...we rode over 100 miles of rugged terrain...liberating towns and cities



One week after their infiltration, a handful of Americans along with our Northern Alliance Army of now nearly 5,000 Mujahedeen fighters, would capture and enter Mazar-e Sharif, the key hub of the northern provinces. Soon after the capture of that city the entire northern provinces fell. The airfield near Mazar-e Sharif and the land line of communications to the Freedom Bridge connecting Afghanistan to Uzbekistan were opened. Within days, Kabul, Khandahar, and the rest of Afghanistan fell to Coalition control. All of this was done with less than 100 Special Forces personnel on the ground.

An exploitation and pursuit phase quickly ensued.

My detachment was spread over 60 km, and we rode over 100 miles of rugged, mountainous terrain alongside General Dostum, Commanders Atta, Mohaqiq, and our Mujahedeen force. We liberated towns and cities along the way, all across the northern provinces. The detachment was responsible for the destruction of hundreds of Taliban and Al Qaida vehicles, bunkers, and heavy equipment, as well as thousands of enemy soldiers, killed, captured, or surrendered.<sup>30</sup>

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<sup>30</sup> Ibid.



**IV. THE BATTLE FOR MAZAR-E SHARIF:  
DEMONSTRATING A METHODOLOGY TO ASSESS NEW TECHNOLOGIES**



# Hypothesizing New Capabilities



*We've talked about what was, that is, the historical aspects of Mazar-e Sharif. Now let's discuss what could be...*



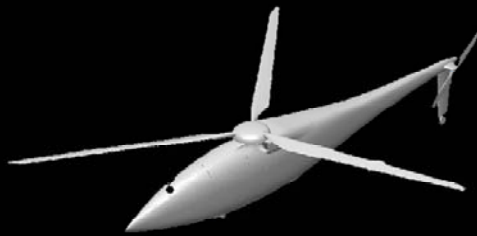
We've discussed what was, that is, the historical aspects of Mazar. Now let's discuss what could be.



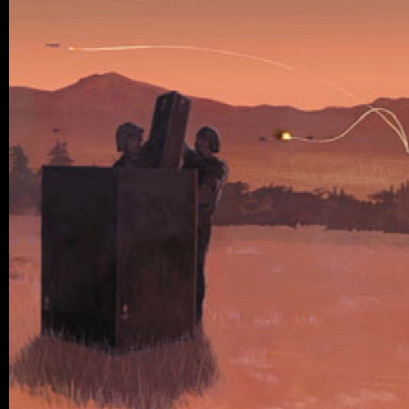
# Hypothesizing New Capabilities



*Emerging DARPA unmanned technologies could affect future operations at the joint, tactical level.*



A160 Vertical Takeoff  
and Landing Unmanned  
Aerial Vehicle



NetFires



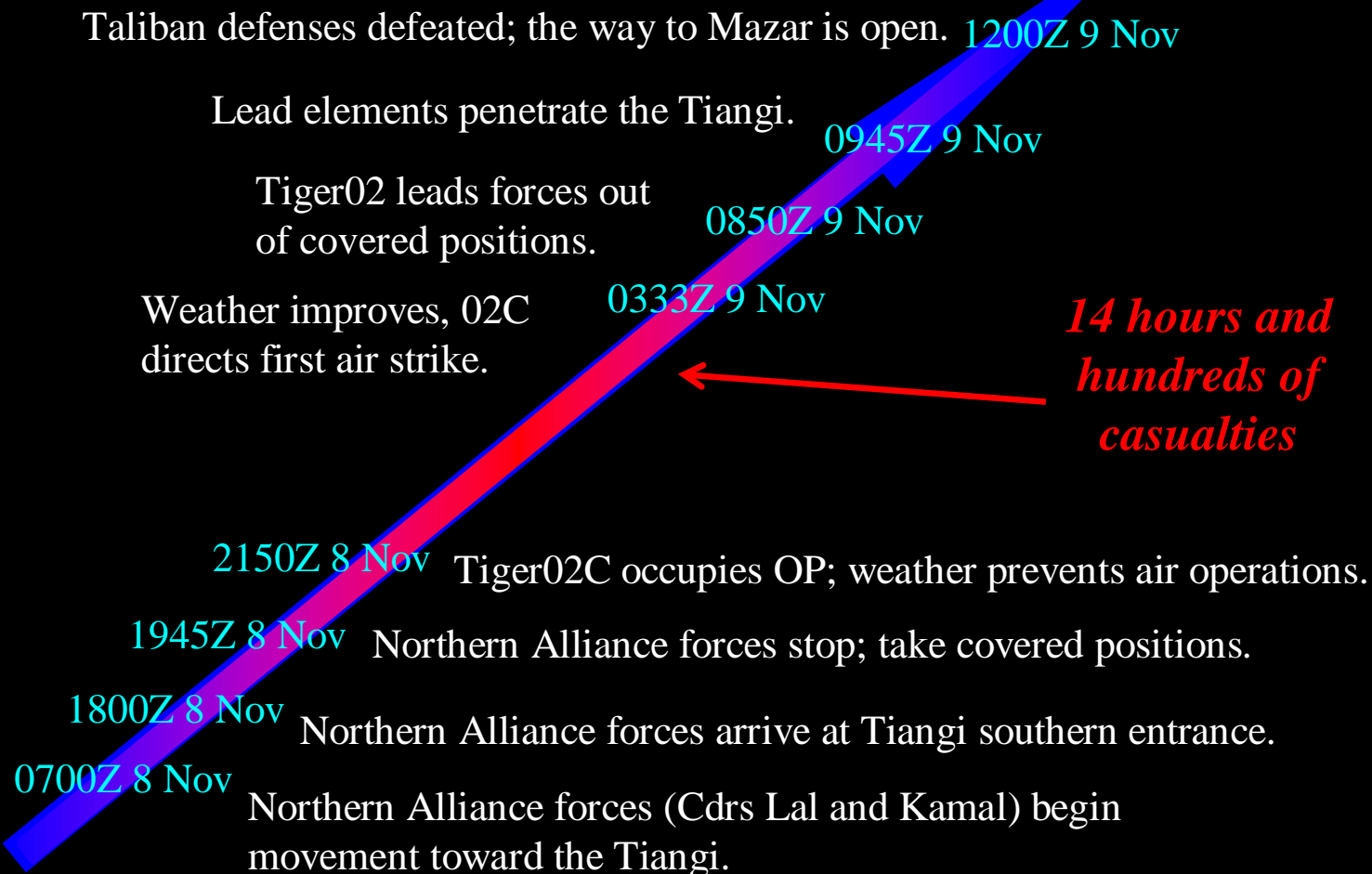
Future Combat System  
(FCS) Unmanned  
Ground Combat Vehicle  
(UGCV)

The purpose of this demonstration is to show a methodology, not promote certain systems or present an analysis. In this case we've selected only three DARPA candidate systems. They could be any three, but for this demonstration we selected:

- The A160 Hummingbird, a VTOL (vertical takeoff and landing) UAV (unmanned aerial vehicle) projected to have endurance greater than 24 hours, adverse-weather capable, and equipped with targeting sensors and a communications relay package (CRP).
- NetFires, and in particular the Loitering Attack Munition, or LAM, with its capability to loiter and then attack at the time and place of the commander's choosing.
- Third is the Future Combat System (FCS) Unmanned Ground Combat Vehicle to lead the way—the dull but dangerous work of walking point for the ground forces.



## Time Line of 8/9 November Events

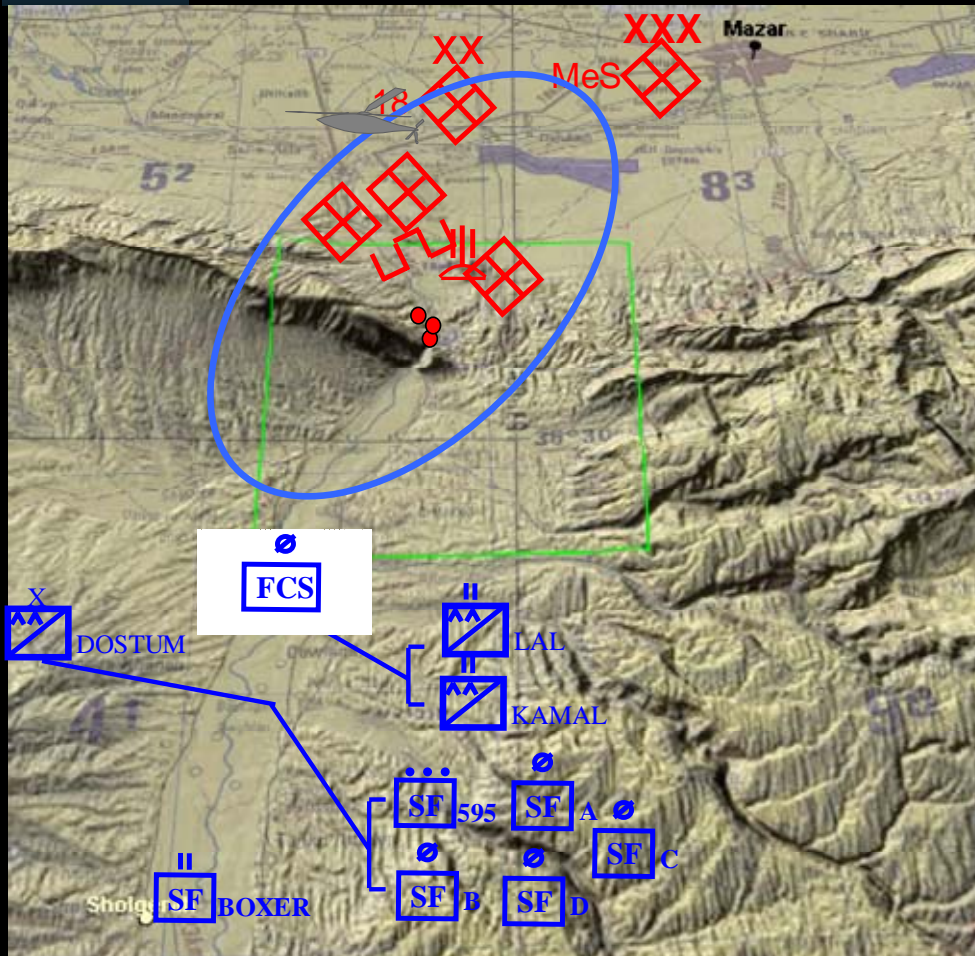




This is the time line for 8–9 November. That is, the time the Northern Alliance began its movement on the 8th up the Shulgareh to where the Taliban defenses were effective—at the Tiangi. Fourteen hours and hundreds of lives later, the Northern Alliance broke through the pass.



# Creating a New Time Line Based on Technology Insertion



0700Z 8 Nov:  
Northern Alliance  
forces begin  
movement toward  
the Tiangi.

An A160 loiters  
over the Taliban  
defensive area.

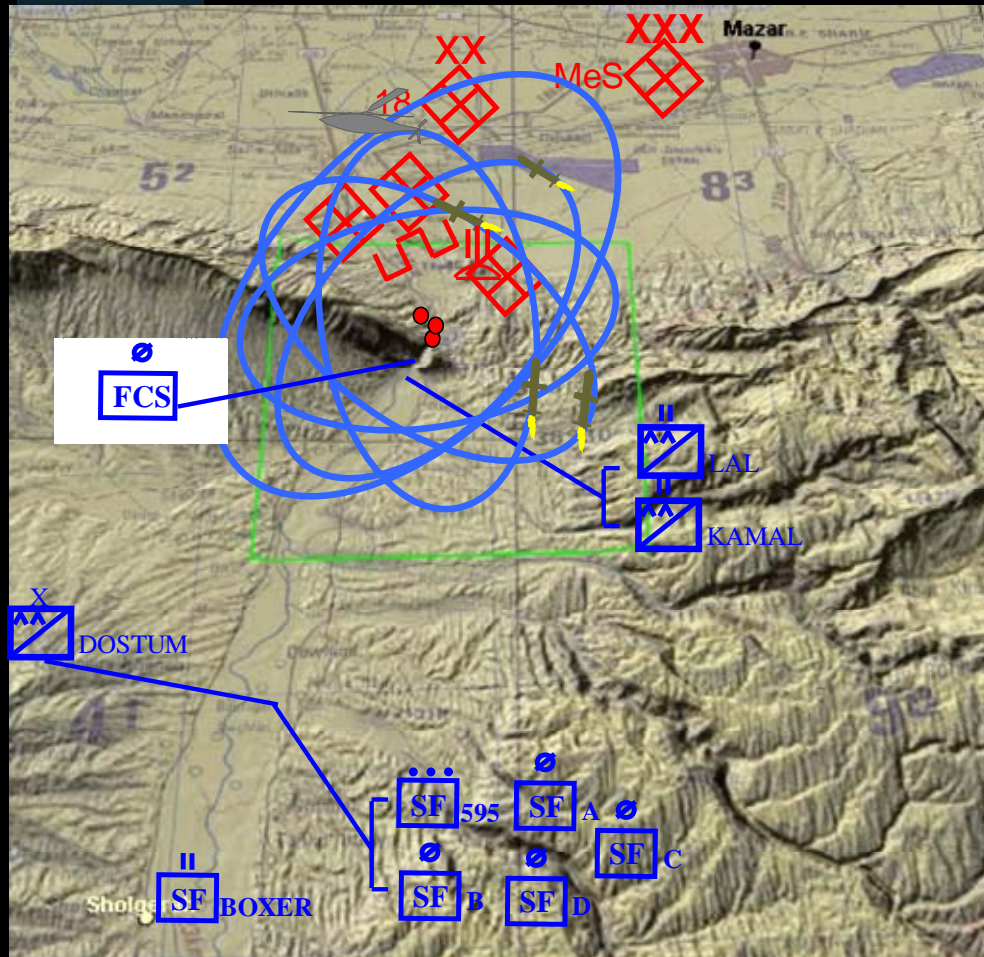
4 FCS UGCV lead  
the advance.



What if—what if we had the three candidate systems? That is, place the A160 north of the Tiangi for reconnaissance, target acquisition, and communications relay; the Unmanned Ground Combat Vehicle in the lead to detonate those mines and work with the A160 to spot the ZSU-23-2s and Taliban defenses; and the LAM to destroy the Taliban. Let's look at creating a new time line and use time and lives saved as measures of effectiveness.



## UGCV on Point, Firepower Available Above



1801Z 8 Nov:  
Northern Alliance  
forces (Lal, Kamal)  
and FCS UGCV on  
point arrive at the  
southern edge of the  
Tiangi.

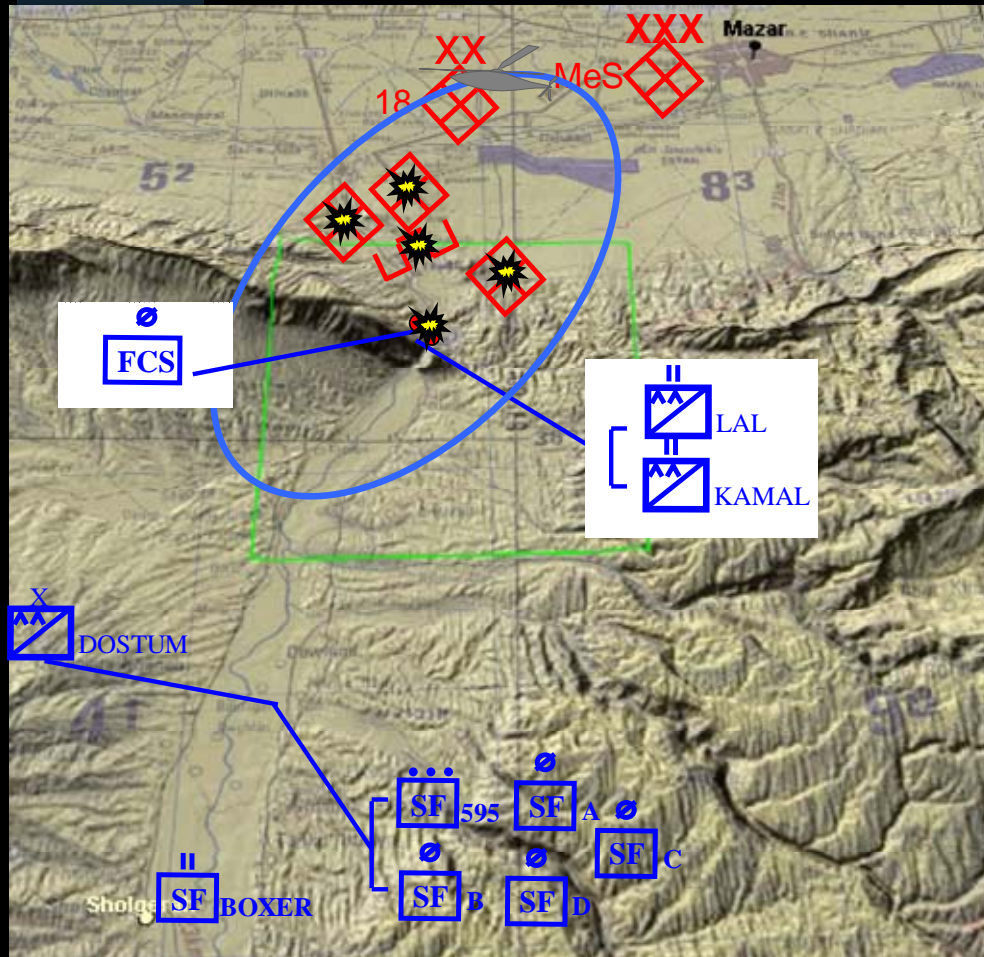
4 LAMs now loiter  
over the Taliban, controlled  
by on-ground SOF  
commands relayed  
through the A160.



At 1801 Zulu on the 8th, the Northern Alliance, with the Unmanned Ground Combat Vehicle in the lead, approach the Tiangi. The A160 maintains contact with the Taliban forces and locates the forward elements of the Taliban defenses. Four LAMs are launched and loiter over the area under the control of the ground Special Operations Forces. Non-line-of-sight control is provided through the communications relay package onboard the A160.



# Clearing the Way



1820Z 8 Nov:

NetFires strike  
southernmost Taliban  
defensive positions.

FCS UGCVs neutralize  
mines in the Tiangi.

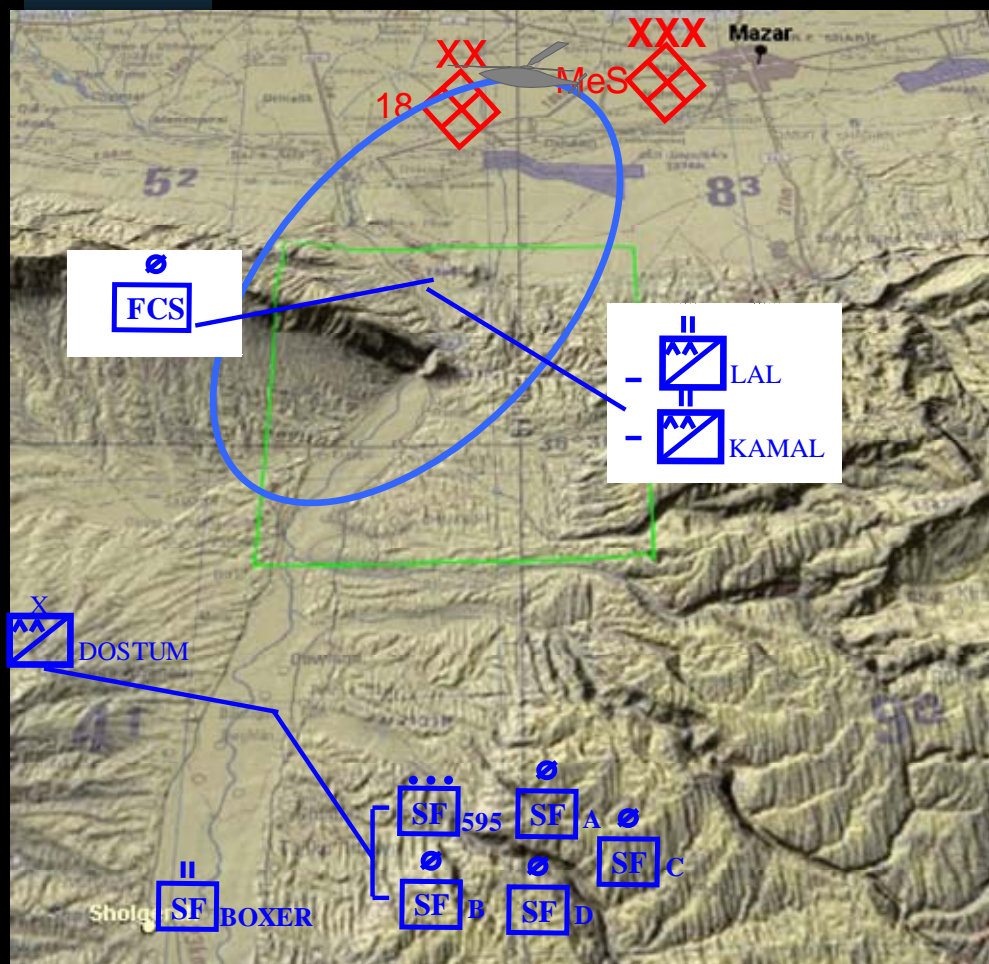
CDRs Lal and Kamal  
continue their advance.



It's 1820 Zulu on the 8th. NetFires strike the Taliban positions, including the ZSU 23-2 used in direct-fire mode down the Tiangi. The Unmanned Ground Combat Vehicles locate and detonate the mines in the pass. Commanders Lal and Kamal continue their advance through the Tiangi.



# The Tiangi is Secure



1840Z 8 Nov:

Lead elements of the FCS UGCV and Northern Alliance emerge from the northern end of the Tiangi.

A160 continues to provide situational awareness.

Remaining Taliban are unable to counterattack due to weather and darkness.



At 1840 Zulu on 8 November, lead elements of the Unmanned Ground Combat Vehicle and Northern Alliance emerge from the northern end of the Tiangi. The A160 continues to provide coverage on Taliban movements and positioning. The remaining Taliban flee—they are unable to counterattack due to weather and darkness.



## Potential Savings



*Potentially  
15 hours . . .*

*and  
hundreds  
of lives  
saved!*

1845Z 8 Nov Coalition forces emerge from the Tiangi, unopposed

1820Z 8 Nov FCS UGCV clear mines; NetFires destroys Taliban forward defenses

1800Z 8 Nov Northern Alliance forces arrive at Tiangi southern entrance

0700Z 8 Nov Northern Alliance forces (Cdrs Lal and Kamal) begin movement toward the Tiangi.

A revised time line reflects potentially 15 hours and hundreds of lives saved by introducing several candidate systems to the battlefield.<sup>31</sup>

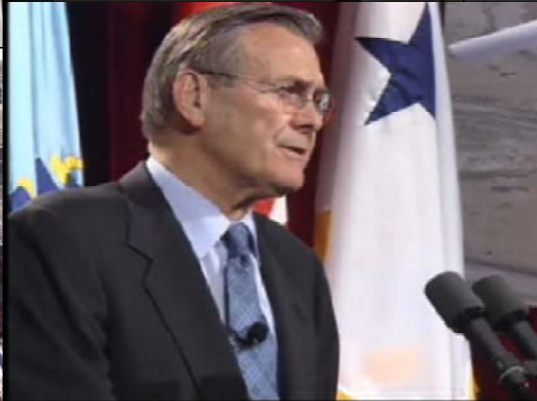
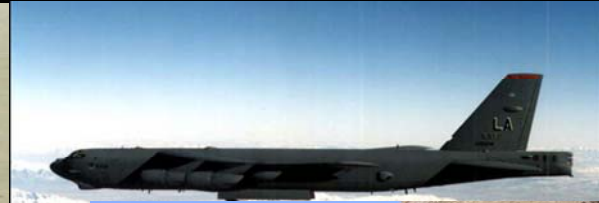
This same approach could be applied to other systems as well. The point of the demonstration is to show the power of an experimental methodology and not promote specific systems.

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<sup>31</sup> Again, the purpose was to demonstrate a methodology, not undertake an analysis. The “potentially 15 hours and hundreds of lives saved” are illustrative of the process, but the numbers were not developed through rigorous analysis.



# Jointness Wins! Training is Critical!



Secretary of Defense Rumsfeld summarizes the winning formula and our training challenge:

Now what won the battle for Mazar and set in the motion the Taliban's fall from power, was a combination of ingenuity of the Special Forces; the most advanced, precision-guided munitions in the U.S. arsenal, delivered by U.S. Navy, Air Force and Marine crews; and the courage of the Afghan fighters, some with one leg. That day on the plains of Afghanistan, the 19th century met the 21st century, and they defeated a dangerous and determined adversary, a remarkable achievement.

The ability of forces to communicate and operate seamlessly on the battlefield will be critical to our success. In Afghanistan, we saw composite teams of U.S. Special Forces on the ground, working with Navy, Air Force, and Marine pilots in the sky, to identify targets, communicate targeting information, and coordinate the timing of strikes, with devastating consequences for the enemy. The lesson of this war is that effectiveness in combat will depend heavily on "jointness," how well the different branches of the military can communicate and coordinate their efforts on the battlefield. And achieving jointness in wartime requires building that jointness in peacetime. We need to train like we fight and fight like we train, and too often, we don't.<sup>32</sup>

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<sup>32</sup> Secretary of Defense Donald Rumsfeld, "Flexibility, Adaptability at the Heart of the Military Transformation," Speech at National Defense University, Ft. McNair, Washington, D.C., 31 January 2002.

*Learning from the First Victories of the  
21st Century: Mazar-e Sharif  
—A Preview—*



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14. ABSTRACT At the request of General Franks, Combatant Commander, U.S. Central Command (CENTCOM), a DARPA/IDA team reconstructed "salient aspects of a major Afghanistan battle (Mazar-e Sharif) in virtual simulation to support historical analysis as well as future research and development." This document provides a preview of that work. Specifically, it: <ul style="list-style-type: none"> <li>• Contrasts state of the art simulation 10 years ago with today's simulation capabilities;</li> <li>• Provides an overview of the Campaign for Mazar-e Sharif and focuses on the battle at Tiangi as an exemplar of one of the many significant engagements; and</li> <li>• Uses the "Tiangi" re-creation as basis for comparing the contributions of various capabilities. The purpose is to demonstrate a method by which capabilities, that is, systems or procedures, can be measured against a base case.</li> </ul>					
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